

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**ADDENDUM NO. 3**

for

**INTERSTATE ROUTE H-1 ADDITION AND MODIFICATION OF FREEWAY ACCESS  
(KAPOLEI INTERCHANGE COMPLEX), PHASE 3**

**FEDERAL-AID PROJECT NO. NH-H1-1(271)**

The following amendments shall be made to the Bid Documents:

**A. SPECIFICATIONS**

1. Replace Special Provision Section 106 dated 3/27/06 with the attached Special Provision Section 106 dated r11/10/22.

**B. PROPOSAL SCHEDULE**

1. Replace Proposal Schedule page P-8 to P-23 dated r10/28/22 with the attached revised Proposal Schedule page P-8 to P-23 dated r11/28/22.

**C. PLANS**

1. Replace Plan Sheets No. 13, 17, 30, 31, 33, ADD. 34, 65, 66, 70, 71, ADD. 74, 79, ADD. 81, ADD. 82, 83, ADD. 89, 90, 93, 94, 95, 101, 102, 103, 104, 106, 115, 117, 119, and 131 with the attached revised Plan Sheets No. ADD. 13, ADD. 17, ADD. 30, ADD. 31, ADD. 33, ADD. 34, ADD. 65, ADD. 66, ADD. 70, ADD. 71, ADD. 74, ADD. 79, ADD. 81, ADD. 82, ADD. 83, ADD. 89, ADD. 90, ADD. 93, ADD. 94, ADD. 95, ADD. 101, ADD. 102, ADD. 103, ADD. 104, ADD. 106, ADD. 115, ADD. 117, ADD. 119, and ADD. 131.
2. Include Plan Sheets No. ADD. 29S-1, ADD. 38S-1, and ADD. 38S-2.

Please acknowledge receipt of this Addendum No. 3 by recording the date of its receipt in the space provided on page P-4 of the Proposal.



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JADE T. BUTAY  
Director of Transportation



1           **SECTION 106 – MATERIAL RESTRICTIONS AND REQUIREMENTS**

2  
3       Make the following amendment to said Section:

4  
5       **(I)**     Amend **106.05(B) – Deviation** by revising the third sentence from line 106  
6       to 108 to read as follows:

7  
8       “Any deviations will be subject to Subsection 102.14 – Substitution of Materials  
9       and Equipment Before Bid Opening.

10  
11      **(II)**    Amend **Section 106 – Material Restrictions and Requirements** by  
12      adding the following after line 334

13  
14      **106.14   Construction Materials.**

15  
16           **(A)**    Buy America requirements apply to the following construction  
17           materials unless otherwise specified:

18  
19                   **(1)**    Non-ferrous metals.

20  
21                   **(2)**    Plastic and polymer-based products such as:

22  
23                           (a)    Polyvinylchloride.

24  
25                           (b)    Composite building materials.

26  
27                           (c)    Polymers used in fiber optic cables.

28  
29                   **(3)**    Glass.

30  
31                   **(4)**    Lumber.

32  
33                   **(5)**    Drywall.

34  
35           Where one or more of these construction materials have been  
36           combined by a manufacturer with other materials through a manufacturing  
37           process, Buy America requirements do not apply unless otherwise  
38           specified. Furnish construction materials to be incorporated into the work  
39           with certificates of compliance with each project delivery. Manufacturer’s  
40           certificate of compliance must identify where the construction material was  
41           manufactured and attest specifically to Buy America compliance. All  
42           manufacturing processes for these materials must occur in the United  
43           States.

44  
45  
46  
47                           **END OF SECTION 106**

<b>PROPOSAL SCHEDULE</b> <b>(All Work Excluding New Sewer Facilities)</b>					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
201.0100	Clearing and Grubbing	L.S.	L.S.	L.S.	\$_____
202.0100	Removal of Existing Hot Mix Asphalt (HMA) Pavement	3,400	S.Y.	\$_____	\$_____
202.0200	Removal of Existing Pavement Markings	1,460	L.F.	\$_____	\$_____
202.0300	Removal of Existing Guardrail	3,450	L.F.	\$_____	\$_____
202.0400	Removal of Existing Signs, Sign Posts, and Foundations	13	Each	\$_____	\$_____
202.0500	Removal of Existing Cantilever Overhead Sign w/ 28' Wide Guide Sign, Sign Post, and Foundations	1	Each	\$_____	\$_____
202.0600	Removal of Existing Emergency Call Box, Post and Foundation	1	Each	\$_____	\$_____
202.0700	Removal of Existing Trees	6	Each	\$_____	\$_____
202.0800	Removal of Existing Concrete, Rock, and Debris	L.S.	L.S.	L.S.	\$_____
202.0900	Removal of Existing Drainage Structure, Drain Line, Salvage Frame and Manhole Cover	L.S.	L.S.	L.S.	\$_____
202.1000	Removal of Existing Headwall	L.S.	L.S.	L.S.	\$_____

<b>PROPOSAL SCHEDULE</b> <b>(All Work Excluding New Sewer Facilities)</b>					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
203.0100	Roadway Excavation	5,900	C.Y.	\$_____	\$_____
203.0200	Borrow Excavated Material	51,400	C.Y.	\$_____	\$_____
204.0100	Trench Excavation for Water Line	700	C.Y.	\$_____	\$_____
204.0200	Trench Backfill for Water Line	1,000	C.Y.	\$_____	\$_____
205.0100	Structure Excavation for Concrete Retaining Wall	3,900	C.Y.	\$_____	\$_____
205.0200	Structure Backfill for Concrete Retaining Walls	25,000	C.Y.	\$_____	\$_____
205.0300	Nonwoven Geotextile Fabric	4,175	S.Y.	\$_____	\$_____
206.0100	Excavation for 12" Drain Line	4	C.Y.	\$_____	\$_____
206.0200	Excavation for 15" Drain Line	10	C.Y.	\$_____	\$_____
206.0300	Excavation for 18" Drain Line	8	C.Y.	\$_____	\$_____
206.0400	Excavation for 24" Drain Line	775	C.Y.	\$_____	\$_____
206.0500	Excavation for 48" Drain Line	1,050	C.Y.	\$_____	\$_____
206.0600	Excavation for 10' x 4' Concrete Box Culvert	1,330	C.Y.	\$_____	\$_____

<b>PROPOSAL SCHEDULE</b> <b>(All Work Excluding New Sewer Facilities)</b>					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
209.0100	Installation, Maintenance, Monitoring and Removal of B.M.P.	L.S.	L.S.	L.S.	\$_____
209.0200	Additional Water Pollution, Dust, and Erosion Control	F.A.	F.A.	F.A.	\$ <u>65,000.00</u>
301.0100	Hot Mix Asphalt Base Course	417	Ton	\$_____	\$_____
304.0100	Aggregate Base Course	905	C.Y.	\$_____	\$_____
304.0200	Imported Granular Fill	1,025	C.Y.	\$_____	\$_____
305.0100	Aggregate Subbase	11,700	C.Y.	\$_____	\$_____
315.0100	Nonwoven Geotextile Fabric	4,175	S.Y.	\$_____	\$_____
316.0100	Polypropylene Biaxial Geogrid	1,966	S.Y.	\$_____	\$_____
401.0100	Hot Mix Asphalt (HMA) Pavement, Mix No. IV	532	Ton	\$_____	\$_____
401.0200	Polymer Modified Asphalt (PMA) Pavement, Mix No. IV	50	Ton	\$_____	\$_____
411.0100	12-Inch Concrete Pavement	15,000	S.Y.	\$_____	\$_____
503.0100	Concrete Retaining Wall	6,300	C.Y.	\$_____	\$_____
503.0300	Concrete in Thrust Blocks for Water Line	18	C.Y.	\$_____	\$_____

<b>PROPOSAL SCHEDULE</b> <b>(All Work Excluding New Sewer Facilities)</b>					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
503.0400	Concrete in Thrust Beams	11	C.Y.	\$_____	\$_____
503.0500	Concrete in Reinforced Concrete Jacket for Water Line	15	C.Y.	\$_____	\$_____
503.0600	Concrete in Headwall	13	C.Y.	\$_____	\$_____
503.0800	Concrete in 10' x 4' Concrete Box Culvert	675	C.Y.	\$_____	\$_____
503.0900	Concrete in End Posts	7	C.Y.	\$_____	\$_____
508.0100	Cement Rubble Masonry	365	C.Y.	\$_____	\$_____
603.0100	12-Inch Reinforced Concrete Pipe, Class III	36	L.F.	\$_____	\$_____
603.0200	15-Inch Reinforced Concrete Pipe, Class III	6	L.F.	\$_____	\$_____
603.0300	18-Inch Reinforced Concrete Pipe, Class III	5	L.F.	\$_____	\$_____
603.0400	24-Inch Reinforced Concrete Pipe, Class III	1,130	L.F.	\$_____	\$_____
603.0500	48-Inch Reinforced Concrete Pipe, Class III	625	L.F.	\$_____	\$_____
603.0600	Bed Course Material for Culvert	180	C.Y.	\$_____	\$_____
603.0700	Clean Existing Culverts	F.A.	F.A.	F.A.	\$ <u>100,000.00</u>
604.0100	Type "1A-9P" Inlet, 4 Feet to 4.99 Feet	1	Each	\$_____	\$_____

<b>PROPOSAL SCHEDULE</b> <b>(All Work Excluding New Sewer Facilities)</b>					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
604.0200	Type "1A-9P" Inlet, 5 Feet to 5.99 Feet	2	Each	\$_____	\$_____
604.0300	Type "1A-9P" Inlet, 8 Feet to 8.99 Feet	1	Each	\$_____	\$_____
604.0400	Type "1A-9P" Inlet, 9 Feet to 9.99 Feet	1	Each	\$_____	\$_____
604.0500	Type "1A-9P" Inlet, 10 Feet to 10.99 Feet	2	Each	\$_____	\$_____
604.0600	Type "1A-9P" Inlet, 17 Feet to 17.99 Feet	1	Each	\$_____	\$_____
604.0700	Type "1A-9P" Inlet, 22 Feet to 22.99 Feet	1	Each	\$_____	\$_____
604.0800	Type Modified "61614P" I-2 Inlet, 9 Feet to 9.99 Feet	1	Each	\$_____	\$_____
604.0900	Type Modified "61614P" I-1 Inlet, 13 Feet to 13.99 Feet	1	Each	\$_____	\$_____
604.1000	Type "61614P" Inlet, 4 Feet to 4.99 Feet	1	Each	\$_____	\$_____
604.1100	Type Riser G-1 Structure, 2 Feet to 2.99 Feet	1	Each	\$_____	\$_____
604.1200	Type Riser H-1 Structure, 2 Feet to 2.99 Feet	1	Each	\$_____	\$_____
604.1300	Type SDMH I-1 Structure, 26 Feet to 26.99 Feet	1	Each	\$_____	\$_____
604.1400	Type SDMH I-2 Structure, 21 Feet to 21.99 Feet	1	Each	\$_____	\$_____

<b>PROPOSAL SCHEDULE</b> <b>(All Work Excluding New Sewer Facilities)</b>					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
604.1500	Type Modified SDMH A-3 P, Cast Iron Frame and Cover, 0 Feet to 0.99 Feet	1	Each	\$_____	\$_____
604.1600	Type "A" Manhole, 4 Feet to 4.99 Feet	1	Each	\$_____	\$_____
604.1700	Type "C" Manhole, 8 Feet to 8.99 Feet	1	Each	\$_____	\$_____
604.1800	Type "C" Manhole, 21 Feet to 21.99 Feet	2	Each	\$_____	\$_____
604.1900	Type "C" Manhole, 24 Feet to 24.99 Feet	1	Each	\$_____	\$_____
604.2000	Type "B1" Catch Basin, 5 Feet to 5.99 Feet	1	Each	\$_____	\$_____
604.2100	Type "C1" Catch Basin, 5 Feet to 5.99 Feet	1	Each	\$_____	\$_____
604.2200	Type "C1" Catch Basin, 2 Feet to 2.99 Feet	1	Each	\$_____	\$_____
604.2300	Type "D" Manhole, 5 Feet to 5.99 Feet	1	Each	\$_____	\$_____
605.0200	6-Inch Perforated Underdrain Pipe	1,850	L.F.	\$_____	\$_____
606.0100	Guardrail Type 3 MGS W-Beam with Strong Posts	4,605	L.F.	\$_____	\$_____
606.0200	Guardrail Type 3 Thrie Beam with Strong Posts	70	L.F.	\$_____	\$_____
606.0300	Guardrail Type 3 Thrie Beam Median with Strong Posts	400	L.F.	\$_____	\$_____

<b>PROPOSAL SCHEDULE</b> <b>(All Work Excluding New Sewer Facilities)</b>					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
606.0400	Guardrail Type MASH TL-3 Temporary Barrier	5,550	L.F.	\$_____	\$_____
606.0500	Reset Guardrail	25	L.F.	\$_____	\$_____
606.0600	Terminal Section Type MSKT or Equal	2	Each	\$_____	\$_____
606.0700	Terminal Section Type MFLEAT MASH or Equal	1	Each	\$_____	\$_____
606.0800	Terminal Section Type Thrie Beam Terminal Connector	1	Each	\$_____	\$_____
606.0900	Terminal Section Type Trailing End Anchorage	1	Each	\$_____	\$_____
606.1000	Terminal Section Type Thrie Beam End Section	1	Each	\$_____	\$_____
606.1100	Transition Section Type MGS to W-Beam	1	Each	\$_____	\$_____
606.1200	Transition Section Type W-Beam to Thrie Beam	5	Each	\$_____	\$_____
607.0100	6-Feet, Chain Link Fence With Metal Post	30	L.F.	\$_____	\$_____
619.0100	Coral Boulder and Fabric Liner	L.S.	L.S.	L.S.	\$_____
622.0100	Highway Light Standards With Non-Breakaway Transformer Bases, On 31-ft-3-Inch Tall Poles, 15-ft Bracket Arms, 218 Watt LED Luminaires, 480 Volts and Concrete Foundation	38	Each	\$_____	\$_____



<b>PROPOSAL SCHEDULE</b> <b>(All Work Excluding New Sewer Facilities)</b>					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
622.0200	Type C Highway Lighting Pullboxes	6	Each	\$_____	\$_____
622.0300	Four 2-Inch Highway Lighting Ducts, Concrete Encased	740	L.F.	\$_____	\$_____
622.0400	One 2-Inch Highway Lighting Duct, Concrete Encased	3,740	L.F.	\$_____	\$_____
622.0500	Connect Existing Highway Lighting Conduit To New Highway Lighting Conduit	5	Each	\$_____	\$_____
622.0600	Equipment Enclosure and Wiring Modifications in Existing Highway Lighting Equipment Enclosure	1	Each	\$_____	\$_____
622.0700	Stub and Cap Highway Lighting Ducts	2	Each	\$_____	\$_____
622.0800	Demolish and Remove Existing Highway Lighting Pullbox And Backfill, Complete	3	Each	\$_____	\$_____
622.0900	Remove Existing Highway Lighting Conduits And Wires, Complete and Backfill, Complete	210	Each	\$_____	\$_____
622.1000	Remove Existing Highway Light Standards, Bracket Arms, And Luminaires; Salvage, Clean And Deliver To The State; Demolish And Remove Concrete Bases And Backfill, Complete	9	Each	\$_____	\$_____

<b>PROPOSAL SCHEDULE</b> <b>(All Work Excluding New Sewer Facilities)</b>					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
622.1100	Existing 2" Conduit With New 3 No. 1, 1 No. 2 Ground Highway Lighting Conductors	1,880	Each	\$_____	\$_____
622.1200	New 3 No. 1, 1 No. 2 Ground Highway Lighting Conductors	5,760	Each	\$_____	\$_____
622.1300	Disconnect and Remove Existing Direct Buried Highway Lighting Cables, and Backfill Complete	930	Each	\$_____	\$_____
622.1400	Disconnect and Remove Existing Highway Lighting Circuit Conductors, Fill Empty 2-inch Conduit With Concrete and Abandon In Place	200	L.F.	\$_____	\$_____
622.1500	Remove and Relocate Existing Highway Light Standard onto New Concrete Foundation, Including All Highway Lighting Wiring as Required, and Demolish and Remove Existing Concrete Base, and Backfill Complete	1	Each	\$_____	\$_____
622.1600	Existing Highway Light Pullbox to be Demolished and Removed and Replaced with New Traffic Rated Type C Highway Light Pullbox, Adjust to Final Grade	1	Each	\$_____	\$_____
622.1700	Connect existing highway lighting to JCI lightgrid system	L.S.	L.S	L.S.	\$_____
623.0100	Type A Traffic Signal/Communications Pullboxes	7	Each	\$_____	\$_____

<b>PROPOSAL SCHEDULE</b> <b>(All Work Excluding New Sewer Facilities)</b>					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
623.0200	Type C Traffic Signal/Communications Pullboxes	7	Each	\$_____	\$_____
623.0300	Two 2-Inch Traffic Signal Ducts, Concrete Encased	3,910	L.F.	\$_____	\$_____
623.0400	Stub and Cap Traffic Signal Ducts	10	Each	\$_____	\$_____
623.0500	Connect Existing Traffic Signal Conduit to New Traffic Signal Conduit	5	Each	\$_____	\$_____
623.0600	Traffic Rated Type A Traffic Signal/Communications Pullboxes	11	Each	\$_____	\$_____
623.0700	Traffic Rated Type C Traffic Signal/Communications Pullboxes	11	Each	\$_____	\$_____
623.0800	Two 2-Inch Communications Signal Ducts, Concrete Encased	4,020	L.F.	\$_____	\$_____
623.0900	One 2-Inch Communications Electric Ducts, Concrete Encased	460	L.F.	\$_____	\$_____
623.0950	One 3-Inch Communications Electric Ducts, Concrete Encased	3,560	L.F.	\$_____	\$_____

<b>PROPOSAL SCHEDULE</b> <b>(All Work Excluding New Sewer Facilities)</b>					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
623.1000	Existing Traffic Signal Pullbox to be Demolished and Removed and Replaced with New Traffic Rated Type A Traffic Signal Pullbox, Adjusted to Final Grade	1	Each	\$_____	\$_____
623.1100	Existing Traffic Signal Pullbox to be Demolished and Removed and Replaced with New Traffic Rated Type B Traffic Signal Pullbox, Adjusted to Final Grade	1	Each	\$_____	\$_____
624.0100	Water Systems	L.S.	L.S.	L.S.	\$_____
626.0100	6-Inch Standard Valve Box	2	Each	\$_____	\$_____
626.0200	16-Inch Beveled Gear Standard Valve Box	1	Each	\$_____	\$_____
626.0300	24-Inch Beveled Gear Standard Valve Box	1	Each	\$_____	\$_____
627.0100	Hydrodynamic Separator Structures	L.S.	L.S.	L.S.	\$_____
629.0100	4-Inch Pavement Striping (Thermoplastic Extrusion)	2,920	L.F.	\$_____	\$_____
629.0200	6-Inch Pavement Striping (Thermoplastic Extrusion)	4,870	L.F.	\$_____	\$_____
629.0300	8-Inch Pavement Striping (Thermoplastic Extrusion)	1,740	L.F.	\$_____	\$_____
629.0400	12-Inch Pavement Striping (Thermoplastic Extrusion)	1,250	L.F.	\$_____	\$_____

<b>PROPOSAL SCHEDULE</b> <b>(All Work Excluding New Sewer Facilities)</b>					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
629.0500	Crosswalk Marking (Thermoplastic Extrusion)	100	L.F.	\$_____	\$_____
629.0600	Pavement Symbol (Thermoplastic Extrusion)	9	Each	\$_____	\$_____
629.0700	Profiled Thermoplastic Striping	19	Each	\$_____	\$_____
629.0800	Type "C" Pavement Markers	250	Each	\$_____	\$_____
629.0900	Type "F" Pavement Markers	2	Each	\$_____	\$_____
629.1000	Type "H" Pavement Markers	76	Each	\$_____	\$_____
631.0100	Regulatory Sign (10 Square Feet or Less, w/ post)	6	Each	\$_____	\$_____
631.0200	Regulatory Sign (More than 10 Square Feet, w/ 2 posts)	1	Each	\$_____	\$_____
631.0300	Warning Sign (10 Square Feet or Less, w/ post)	10	Each	\$_____	\$_____
631.0400	Warning Sign (More than 10 Square Feet, w/ 2 posts)	3	Each	\$_____	\$_____
631.0500	Interchange Exit Sign (2 posts)	1	Each	\$_____	\$_____
631.0600	Relocation of Existing Sign	1	Each	\$_____	\$_____
631.0700	Guide Sign (Expressway)	4	Each	\$_____	\$_____

<b>PROPOSAL SCHEDULE</b> <b>(All Work Excluding New Sewer Facilities)</b>					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
631.0800	Guide Sign (1 Post)	3	Each	\$_____	\$_____
634.0100	Portland Cement Concrete Sidewalk	439	C.Y.	\$_____	\$_____
636.0100	E-Construction License	F.A.	F.A.	F.A.	\$ <u>10,000.00</u>
638.0100	Curb, Type 2D	1,650	L.F.	\$_____	\$_____
638.0200	Curb and Gutter, Type 2DG	2,730	L.F.	\$_____	\$_____
641.0100	Hydro-mulch Seeding	L.S.	L.S.	L.S.	\$_____
643.0100	Maintenance of Existing Landscape Areas	F.A.	F.A.	F.A.	\$ <u>25,000.00</u>
645.0100	Traffic Control	L.S.	L.S.	L.S.	\$_____
645.0200	Additional Police Officers, Additional Traffic Control Devices, and Advertisement	F.A.	F.A.	F.A.	\$ <u>750,000.00</u>
648.0100	Field Posted Drawings	L.S.	L.S.	L.S.	\$_____
650.0100	Curb Ramp, Type B	6	Each	Each	\$_____
650.0200	Detectable Warning Mat	6	Each	Each	\$_____
696.0100	Field Office Trailer (Not to exceed \$32,000, 1 Total)	L.S.	L.S.	L.S.	\$_____

**PROPOSAL SCHEDULE**

**(All Work Excluding New Sewer Facilities)**

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
696.0200	Maintenance of Trailers	F.A.	F.A.	F.A.	\$ <u>50,000.00</u>
699.0100	Mobilization (Not to exceed 6 percent of the sum of all items excluding the bid price of this item)	L.S.	L.S.	L.S.	\$ _____
a. Sum of All Items (All Work Excluding New Sewer Facilities) ..... \$ _____					
NOTE: Bidders must complete all unit prices and amounts. Failure to do so may be grounds for rejection of bid.					

**PROPOSAL SCHEDULE FOR NEW SEWER FACILITIES**  
**(HARBOR ACCESS ROAD BL STA. 14+03.99 RT. to 19+22.76 RT. )**

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
204.0300	Trench Excavation for 30" Sewer Line	2,150	C.Y.	\$_____	\$_____
204.0400	Trench Backfill for 30" Sewer Line	2,050	C.Y.	\$_____	\$_____
209.0300	Installation, Maintenance, Monitoring and Removal of B.M.P.	L.S.	L.S.	L.S.	\$_____
209.0400	Additional Water Pollution, Dust, and Erosion Control	F.A.	F.A.	F.A.	\$ <u>10,000.00</u>
503.0700	Concrete in Reinforced Jacket for Sewer Line	70	C.Y.	\$_____	\$_____
625.0100	Sewer System	560	L.F.	\$_____	\$_____
626.0400	Sewer Type "SB" Manhole, 14 Feet to 14.99 Feet	1	Each	\$_____	\$_____
626.0500	Sewer Type "SB" Manhole, 15 Feet to 15.99 Feet	1	Each	\$_____	\$_____
699.0200	Mobilization (Not to exceed 6 percent of the sum of all items under excluding the bid price of this Item)	L.S.	L.S.	L.S.	\$_____



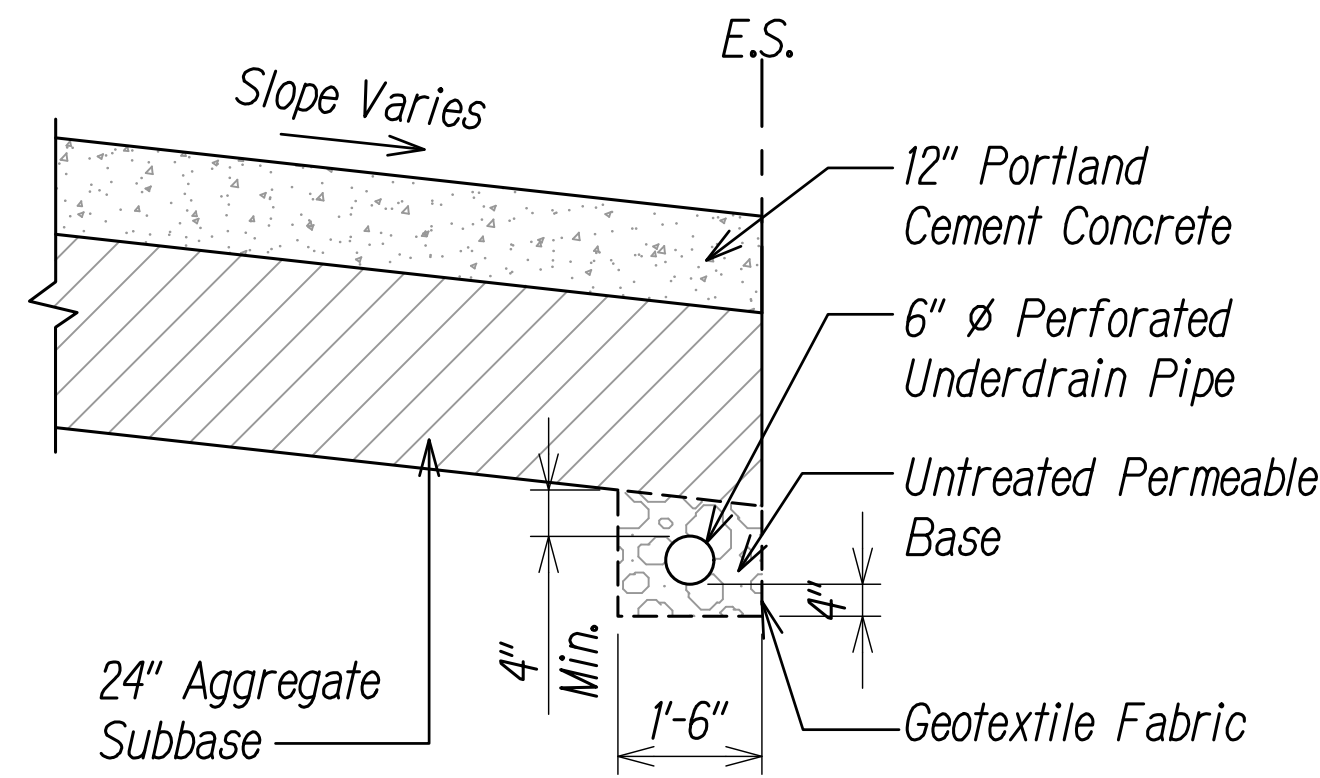
**PROPOSAL SCHEDULE FOR NEW SEWER FACILITIES**  
**(HARBOR ACCESS ROAD BL STA. 14+03.99 RT. to 19+22.76 RT. )**

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
<p>b. Sum of All Items for New Sewer Facilities ..... \$ _____</p> <p>NOTES:</p> <p>1. See Sewer Plan and Profile (Plan Sheets no. U-1 and U-4) for new sewer facilities work.</p> <p>2. Bidders must complete all unit prices and amounts. Failure to do so may be grounds for rejection of bid.</p>					

**PROPOSAL SCHEDULE SUMMARY**

a.	Sum of All Items (All Work Excluding New Sewer Facilities) .....	\$ _____
b.	Sum of All Items for New Sewer Facilities .....	\$ _____
c.	Amount for Comparison of Bids (a+b) .....	\$ _____
<p>NOTE: Bidders must complete all unit prices and amounts. Failure to do so may be grounds for rejection of bid.</p>		

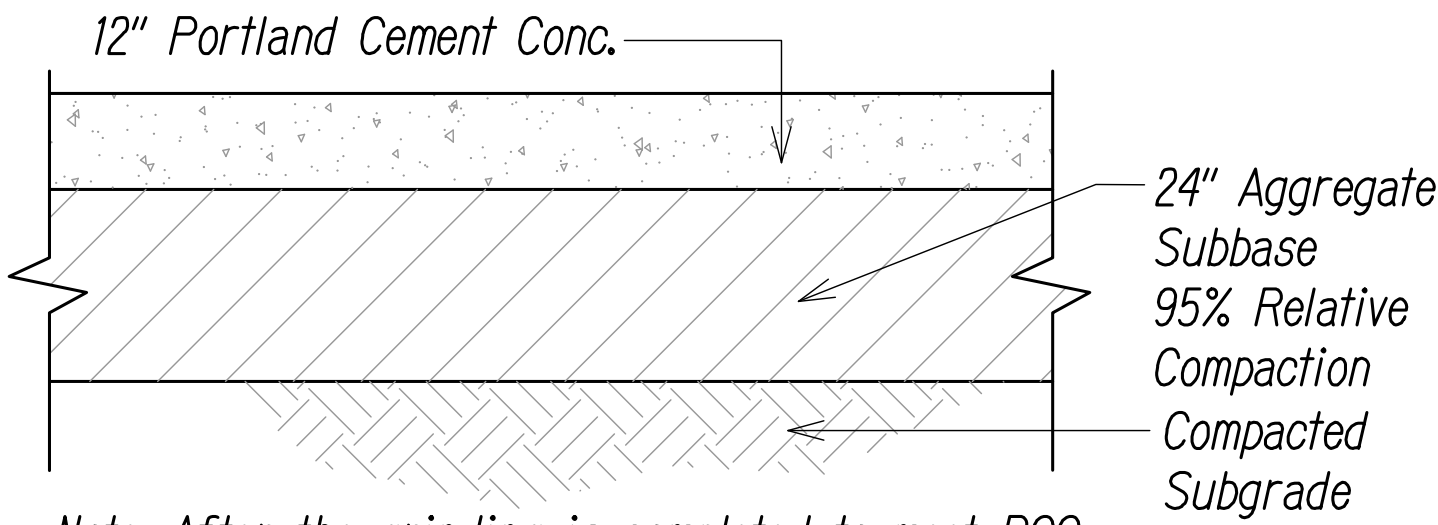
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-K(271)	2022	ADD. 13	167



UNDERDRAIN DETAIL

Scale: 1/2" = 1'-0"

1  
T-13

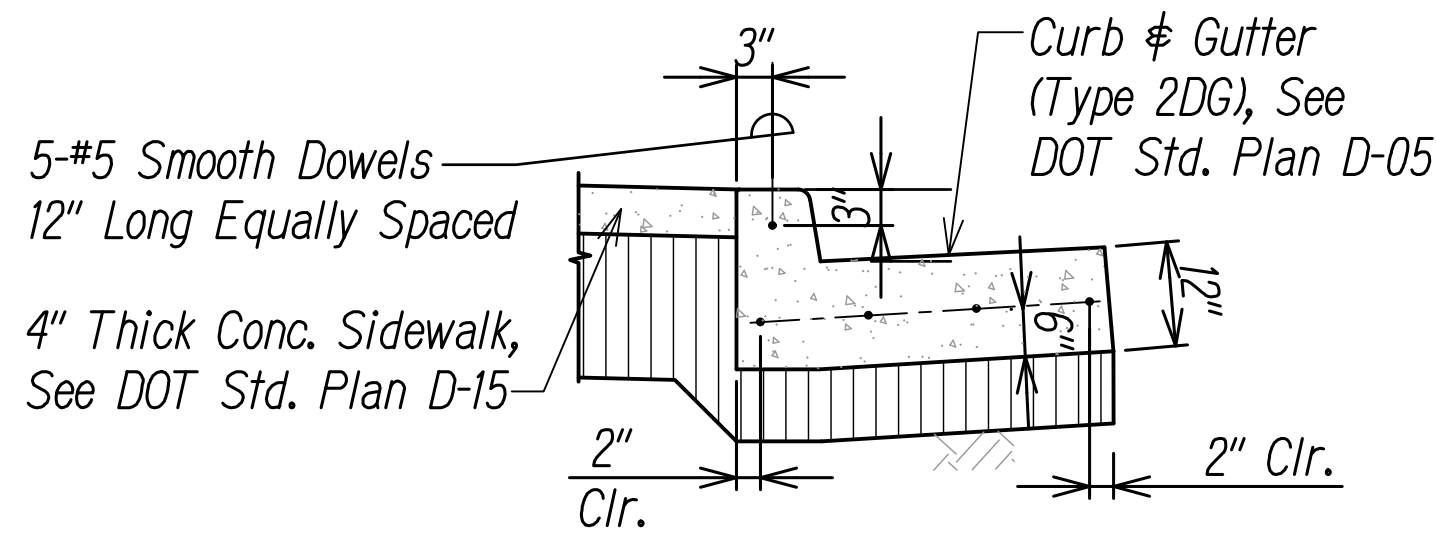


PAVEMENT DETAIL

Scale: 1/2" = 1'-0"

2  
T-13

Note: After the grinding is completed to meet PCC smoothness criteria, all ramps with a horizontal curve shall be regrooved to restore the original longitudinal tining (depth and width of groove, spacing of the groove, etc.)

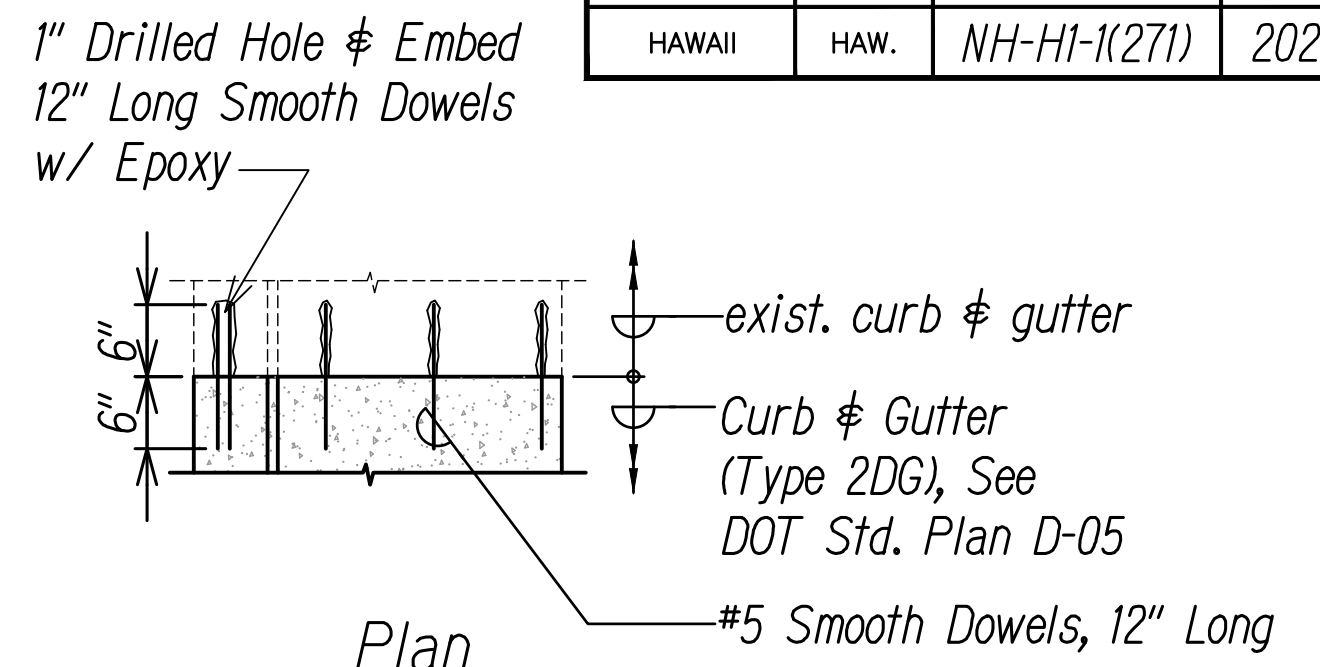


New Conc. Curb & Gutter Section

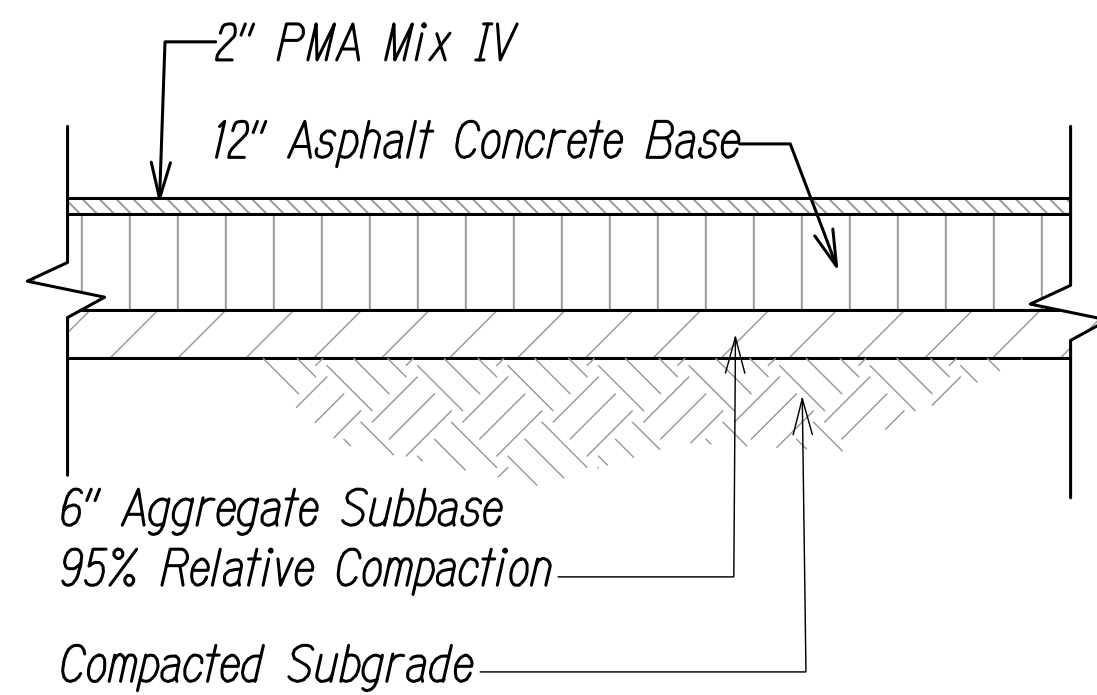
CONC. CURB & GUTTER CONN. DETAIL

Scale: 3/4" = 1'-0"

3  
T-13



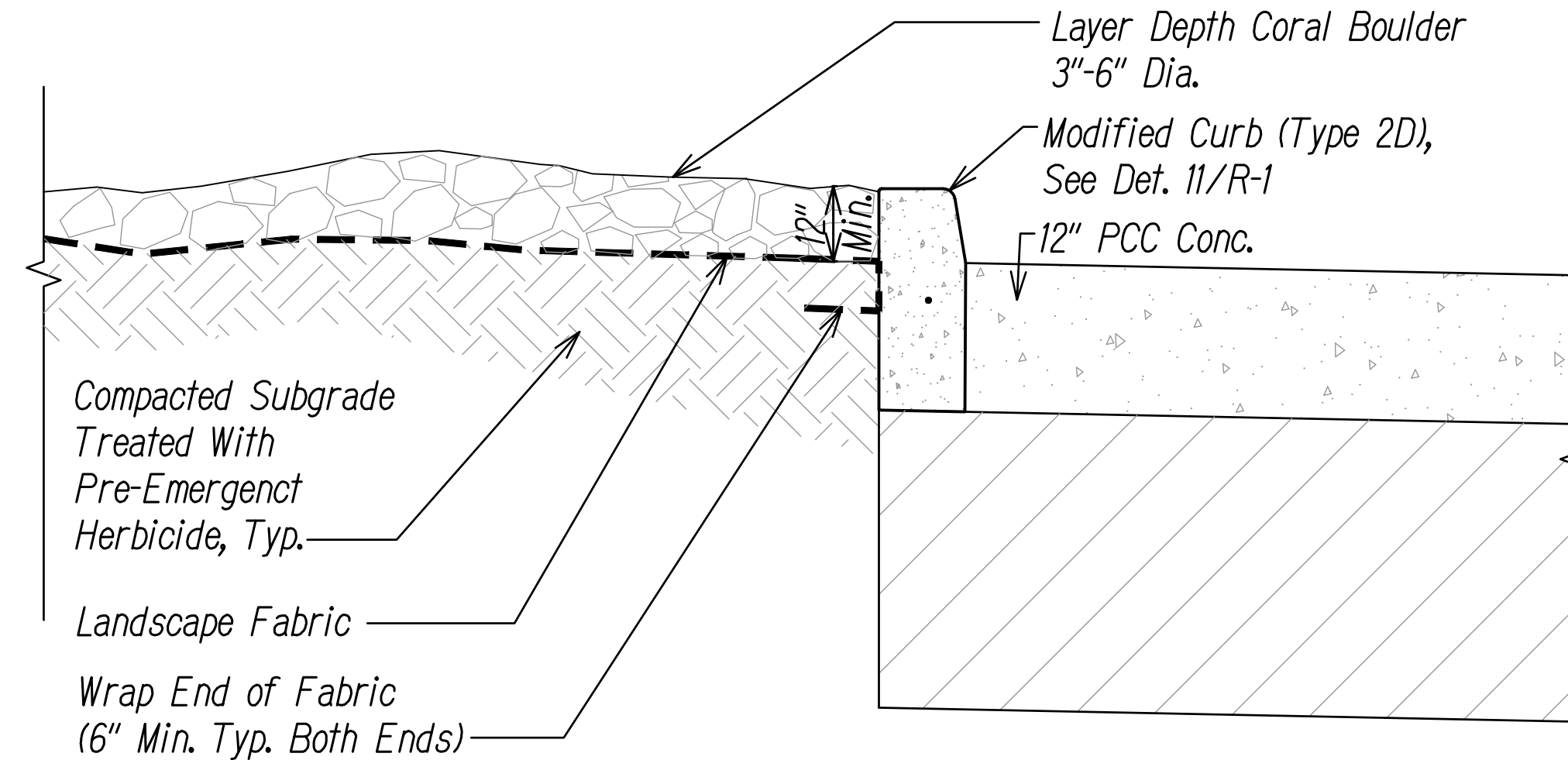
Plan



A.C. PAVEMENT DETAIL

Scale: 1/2" = 1'-0"

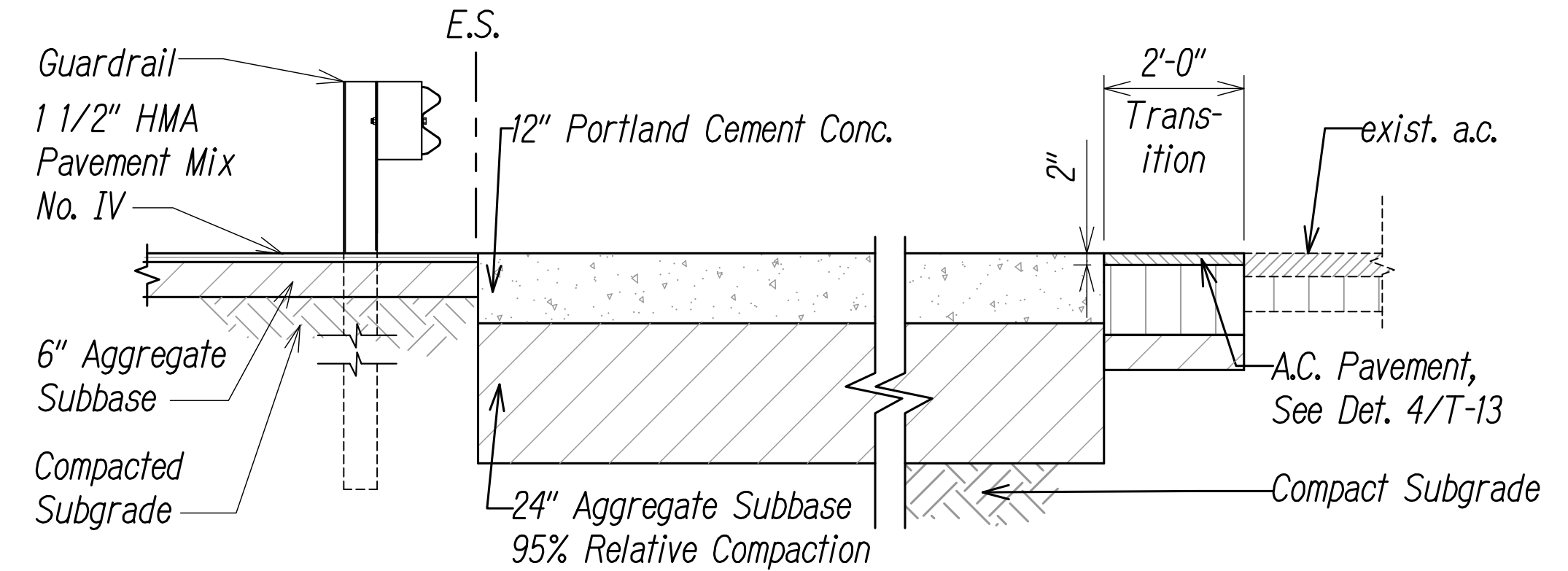
4  
T-13



CORAL BOULDER IN MEDIAN DETAIL

Scale: 1" = 1'-0"

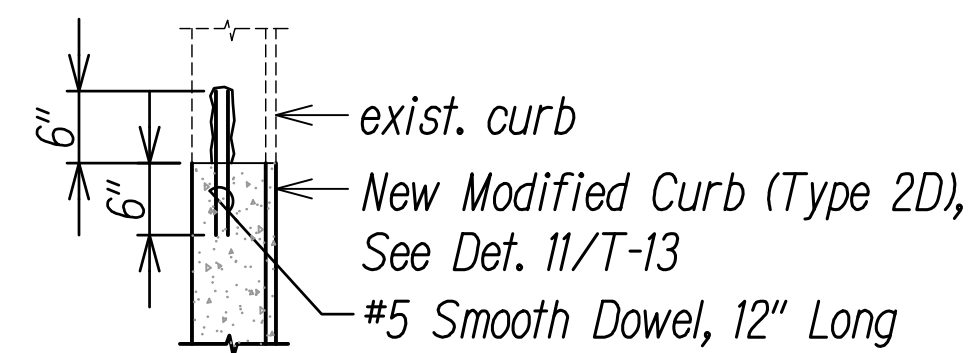
5  
T-13



A.C. PAVEMENT CONNECTION DETAIL

Scale: 1/2" = 1'-0"

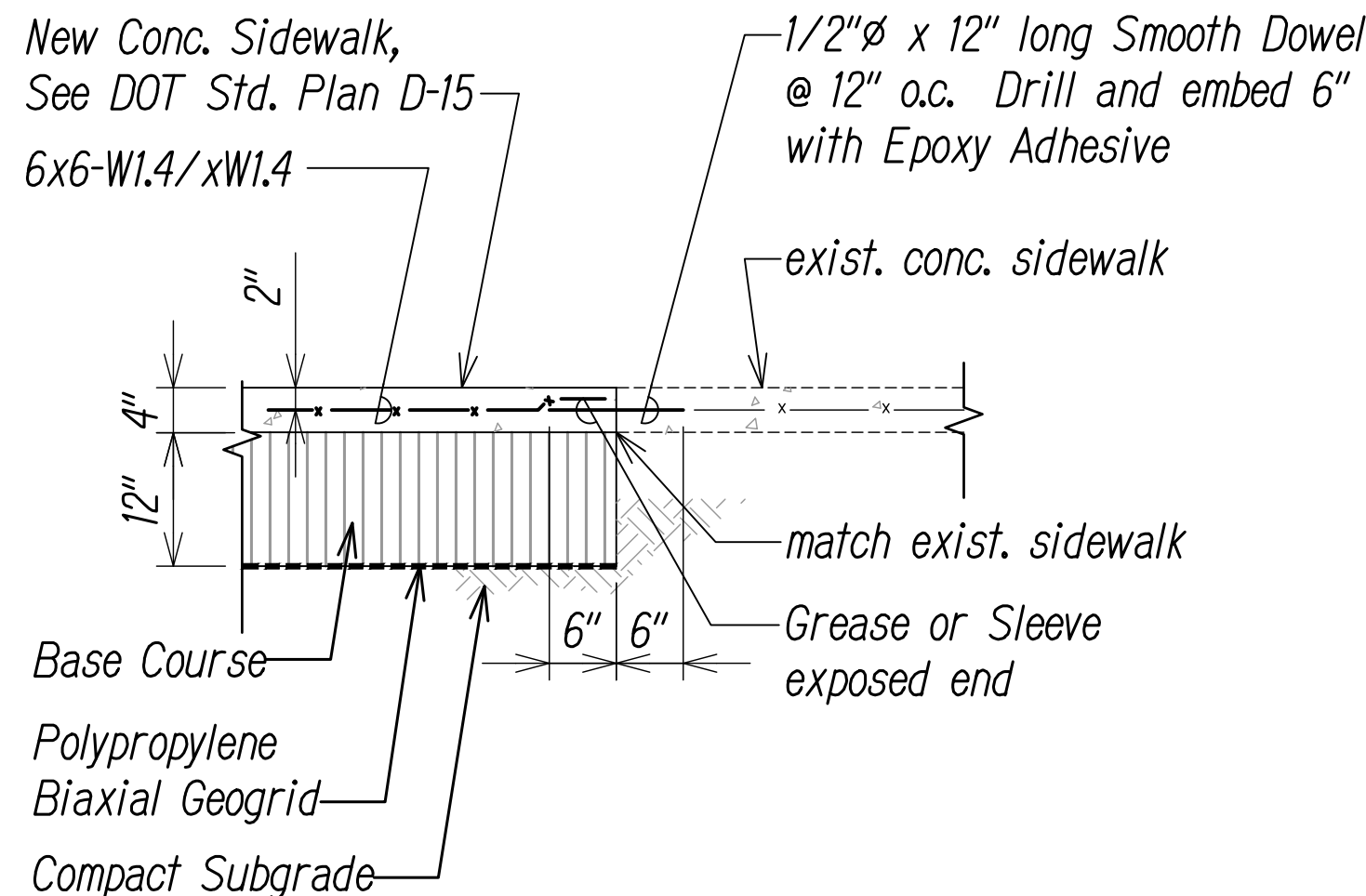
6  
T-13



CONC. CURB CONN. DETAIL

Scale: 3/4" = 1'-0"

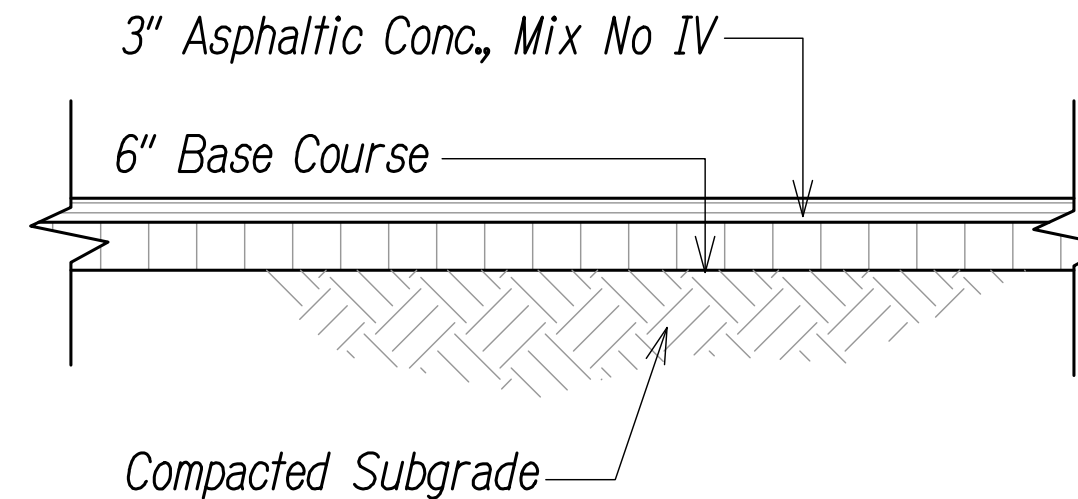
7  
T-13



CONN. TO EXIST. CONC. SIDEWALK DETAIL

Scale: 3/4" = 1'-0"

8  
T-13

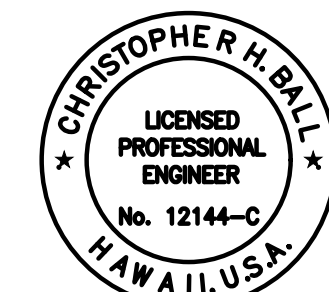
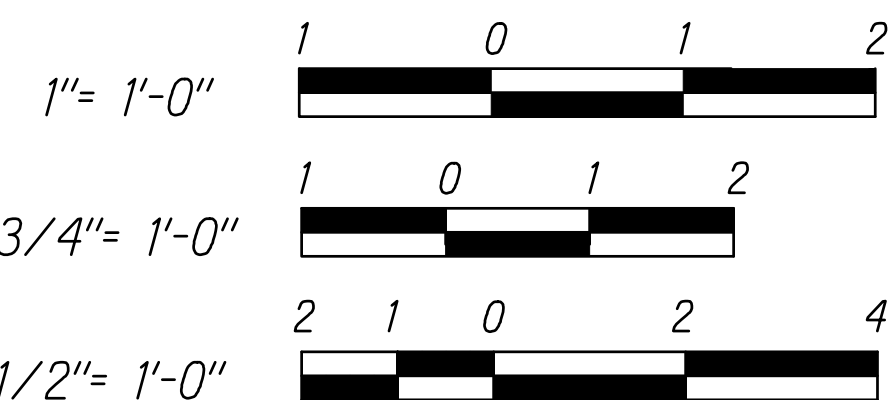


A.C. PAVEMENT DETAIL FOR ACCESS ROADS

Scale: 1/2" = 1'-0"

9  
T-13

Graphic Scale



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Chris Ball  
MITSUNAGA & ASSOCIATES, INC. 4/30/2024  
NOTE: Contractor to check and verify dimensions at job before proceeding with work.

DATE	REVISION
11/17/2022	Revised Title of detail 9/T-13
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<b>PAVEMENT DETAILS 1</b>	
INTERSTATE ROUTE H-1 ADDITION AND MODIFICATION OF FREEWAY ACCESS (Kapolei Interchange Complex), Phase 3 Federal Aid Project No. NH-H1-K(271)	
Scale: As Noted	Date: August 2022

SHEET NO. T-13 OF 167 SHEETS

ADD. 13

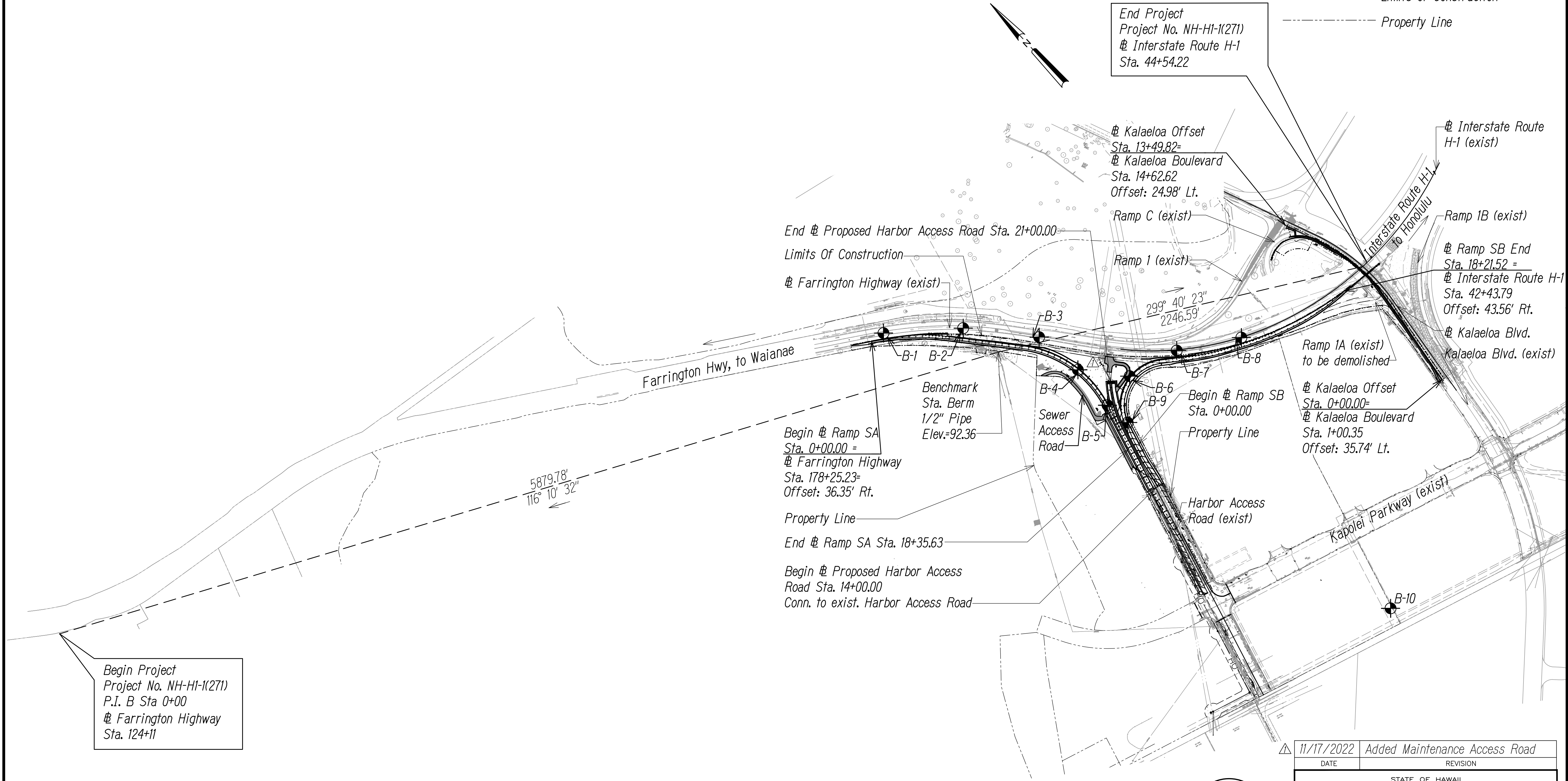
SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-HI-1(271)	2022	ADD. 17	167

Legend

----- Limits of Construction

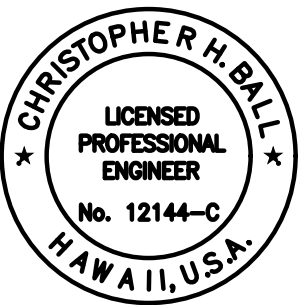
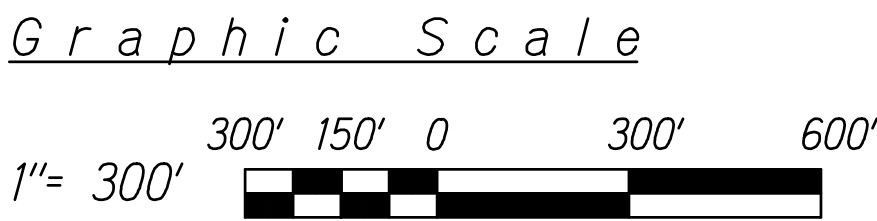
----- Property Line



Begin Project  
Project No. NH-HI-1(271)  
P.I. B Sta 0+00  
@ Farrington Highway  
Sta. 124+11

End Project  
Project No. NH-HI-1(271)  
@ Interstate Route H-1  
Sta. 44+54.22

**GENERAL PLAN**  
Scale: 1" = 300'



This work was prepared by  
me or under my supervision

*Chris Ball*  
MITSUNAGA & ASSOCIATES, INC. 4/30/2024  
NOTE: Contractor to check and verify  
dimensions at job before proceeding with work.

DATE	REVISION
11/17/2022	Added Maintenance Access Road

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**GENERAL PLAN**

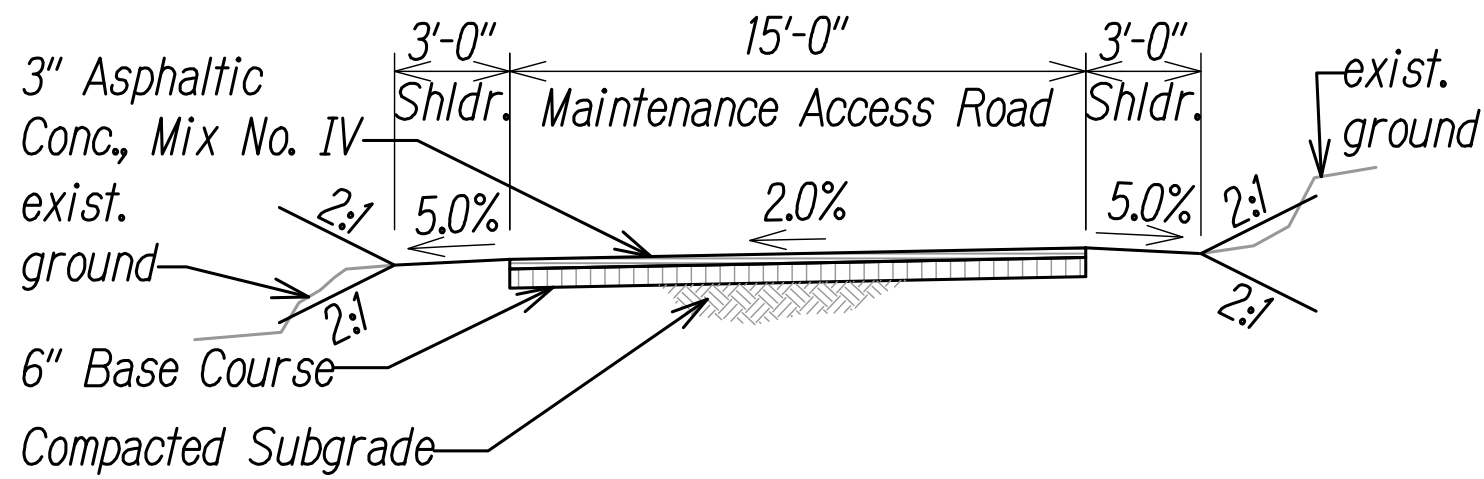
**INTERSTATE ROUTE H-1  
ADDITION AND MODIFICATION OF FREEWAY ACCESS  
(Kapolei Interchange Complex), Phase 3  
Federal Aid Project No. NH-HI-1(271)**

Scale: As Noted Date: August 2022

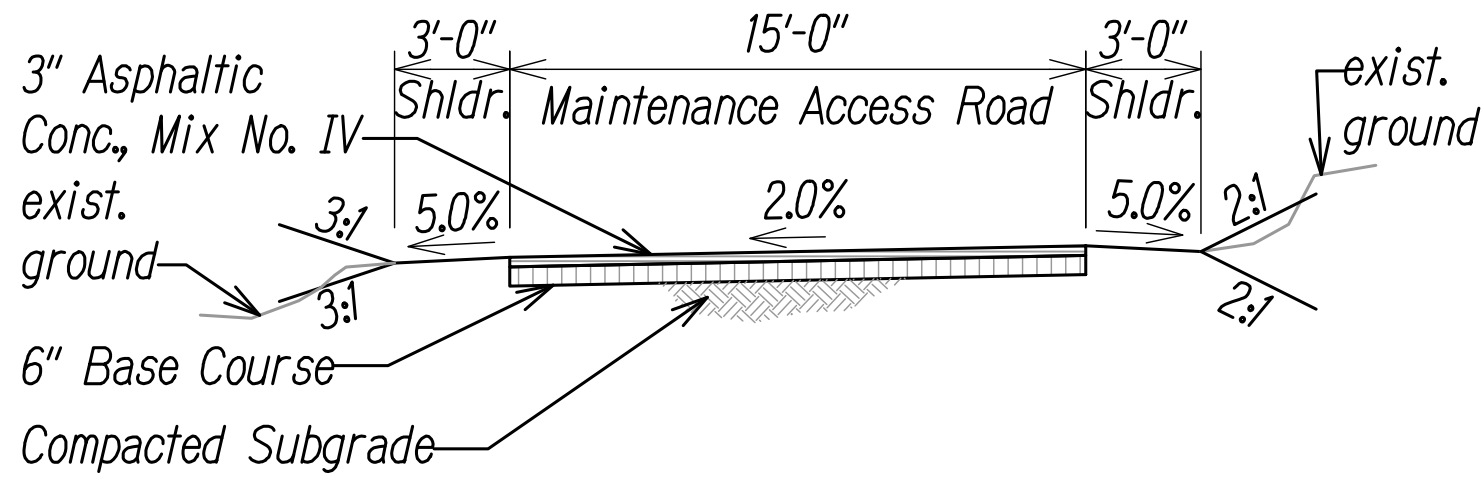
SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	

ORIGINAL PLAN No.

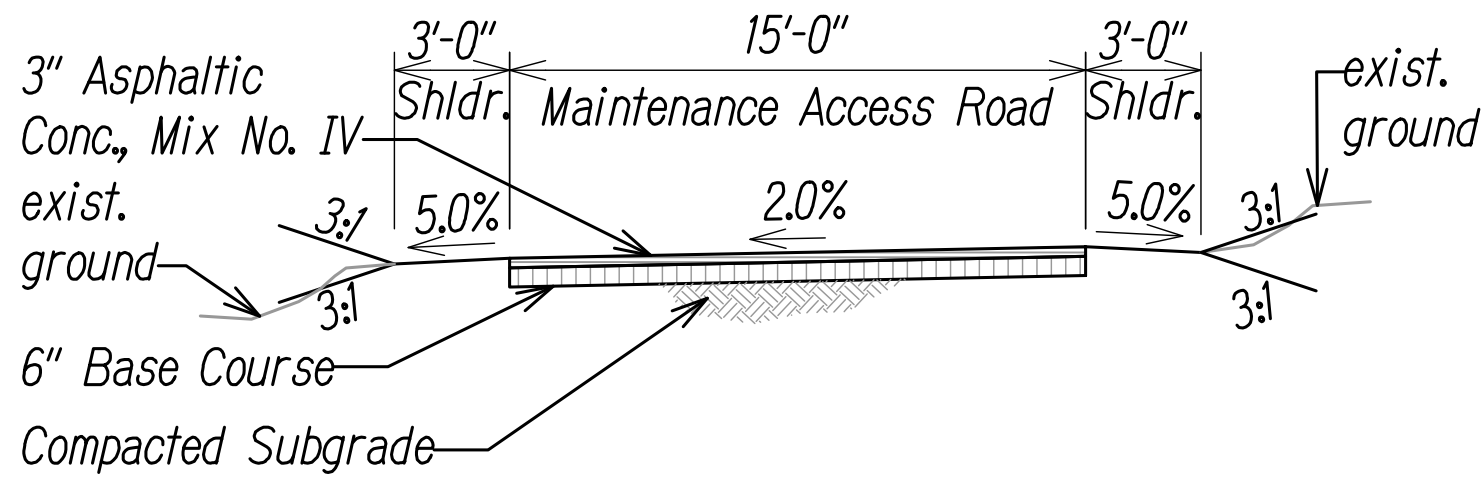
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-K(271)	2022	ADD. 29 S-1	167



△ TYPICAL ROAD SECTION  
# STA. 0+45 TO STA. 0+85 - MAINTENANCE ACCESS ROAD 1  
Scale: 1"=5'-0" R-11 S1



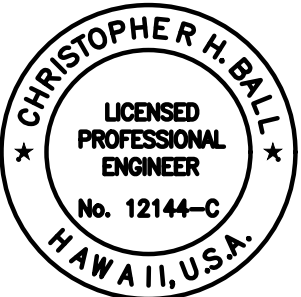
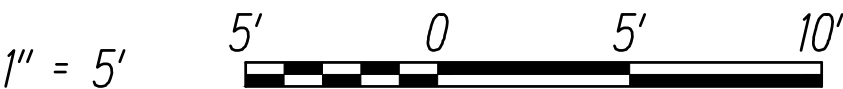
△ TYPICAL ROAD SECTION  
# STA. 0+85 TO STA. 1+40 - MAINTENANCE ACCESS ROAD 2  
Scale: 1"=5'-0" R-11 S1



△ TYPICAL ROAD SECTION  
# STA. 1+40 TO STA. 2+70 - MAINTENANCE ACCESS ROAD 3  
Scale: 1"=5'-0" R-11 S1

SURVEY PLOTTED BY	DATE
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	

Graphic Scale



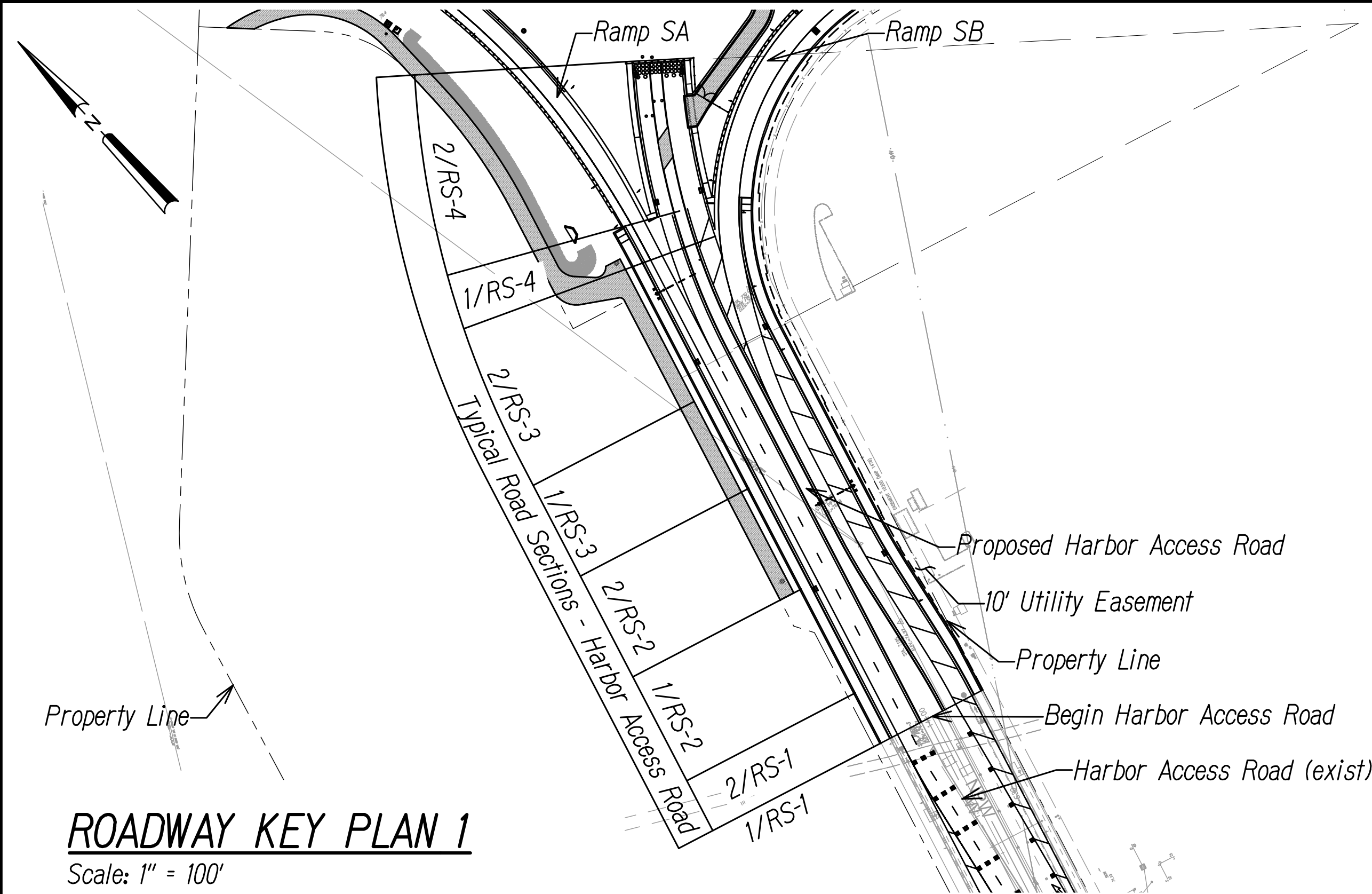
This work was prepared by me or under my supervision

Chris Ball  
MITSUNAGA & ASSOCIATES, INC. 4/30/2024  
NOTE: Contractor to check and verify dimensions at job before proceeding with work.

DATE	11/17/2022	REVISION	Added Maintenance Access Road
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION			
<b>TYPICAL SECTIONS 12</b>			
INTERSTATE ROUTE H-1 ADDITION AND MODIFICATION OF FREEWAY ACCESS (Kapolei Interchange Complex), Phase 3 Federal Aid Project No. NH-H1-K(271)			
Scale: As Noted		Date: August 2022	

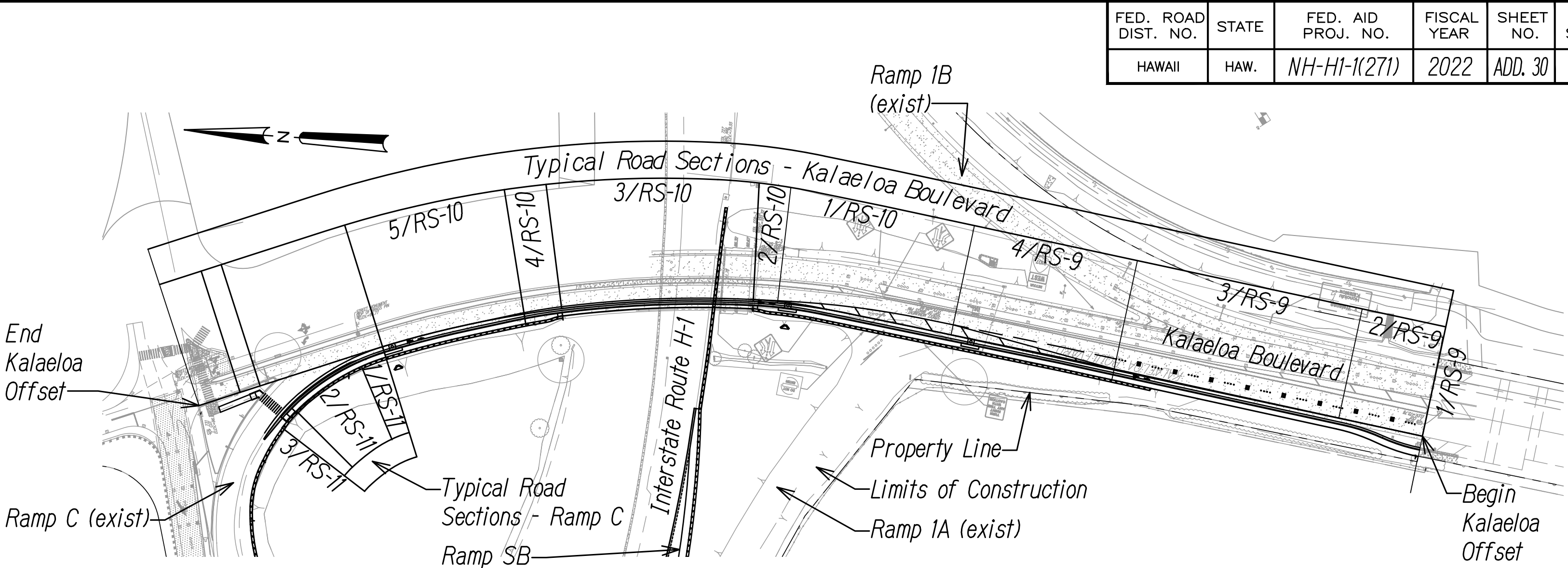


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-HI-K(271)	2022	ADD. 30	167



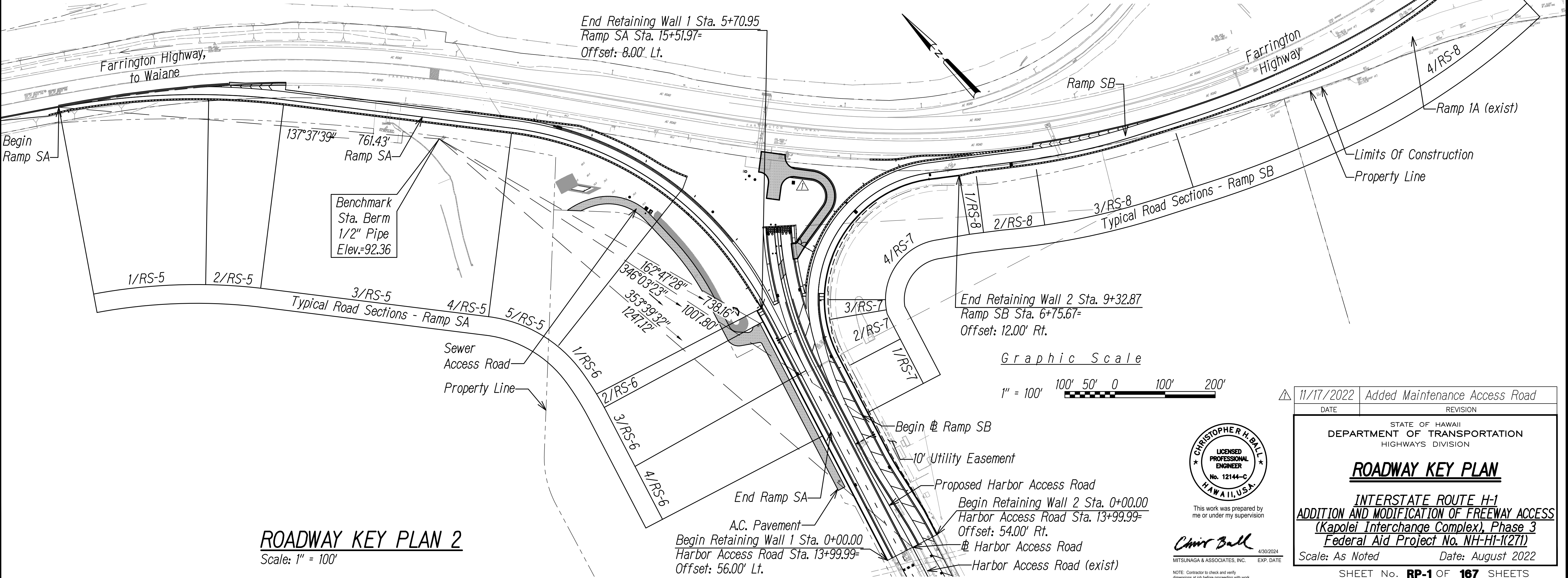
**ROADWAY KEY PLAN 1**

Scale: 1" = 100'



**ROADWAY KEY PLAN 3**

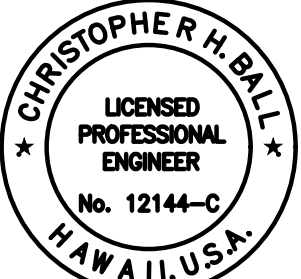
Scale: 1" = 100'



**ROADWAY KEY PLAN 2**

Scale: 1" = 100'

SURVEY PLOTTED BY	DATE
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	



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**Chris Ball**  
MITSUNAGA & ASSOCIATES, INC. EXP. DATE: 4/30/2024  
NOTE: Contractor to check and verify dimensions at job before proceeding with work.

DATE	REVISION
11/17/2022	Added Maintenance Access Road
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<b>ROADWAY KEY PLAN</b>	
<b>INTERSTATE ROUTE H-1 ADDITION AND MODIFICATION OF FREEWAY ACCESS (Kapolei Interchange Complex), Phase 3 Federal Aid Project No. NH-HI-K(271)</b>	
Scale: As Noted	Date: August 2022





Legend

— · · · · — Limits of Construction

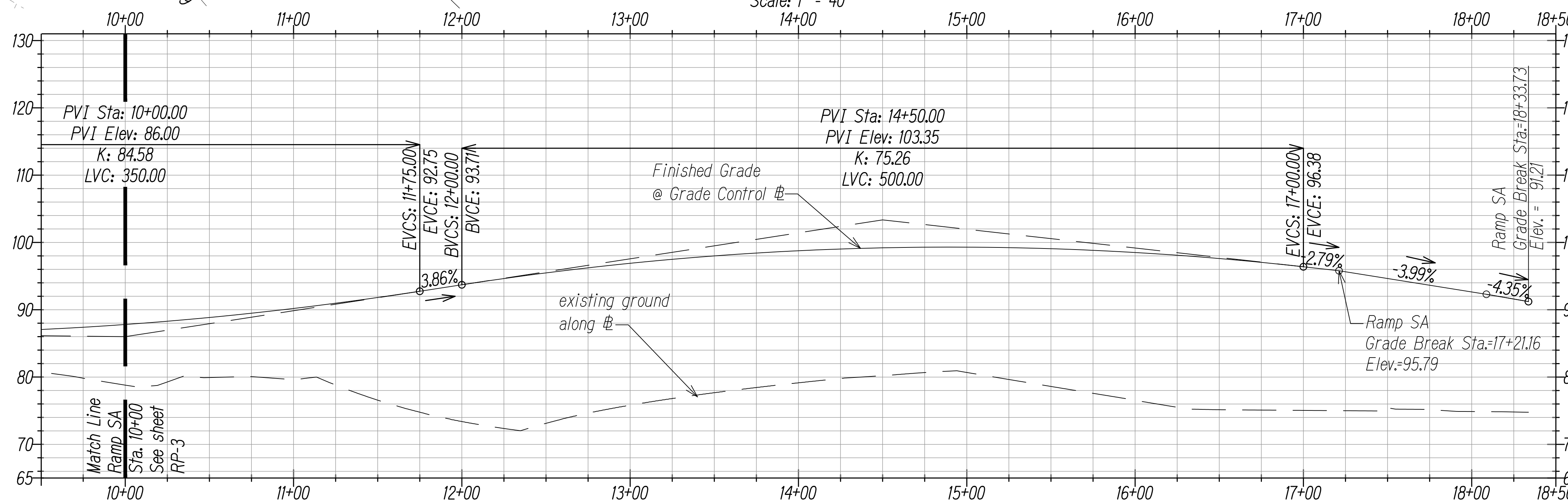
— · · · · — Guardrail

— — — — — Property Line

— — — — — Portable Concrete Barrier

11/11/2019 11:11 AM

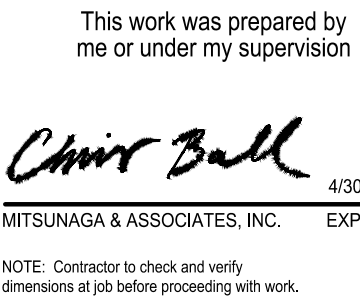
<i>Line Data</i>		
<i>Line #</i>	<i>Length</i>	<i>Direction</i>
<i>L4</i>	<i>10.00'</i>	<i>283°04'02"</i>
<i>L10</i>	<i>242.68'</i>	<i>15°23'00"</i>



Graphic Scale

$1'' = 40'$       40' 20' 0 40' 80'

$1'' = 10'$       10' 5' 0 10' 20'

ADD. 33



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-HI-K(271)	2022	ADD. 34	167

Legend

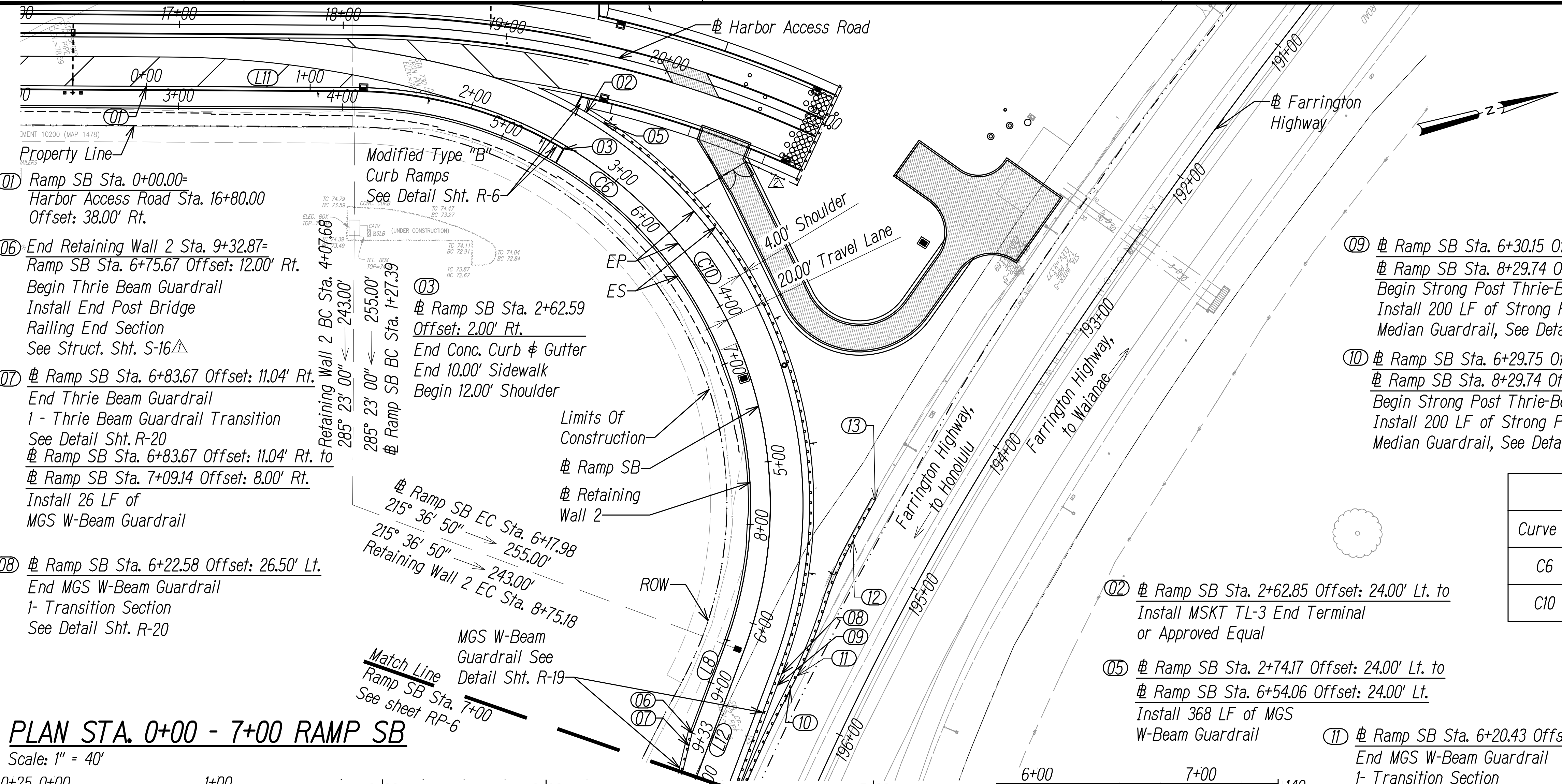
- Limits of Construction  
--- Guardrail  
--- Property Line

Note:

1. See sheet RS-7 and RS-8 for typical sections.

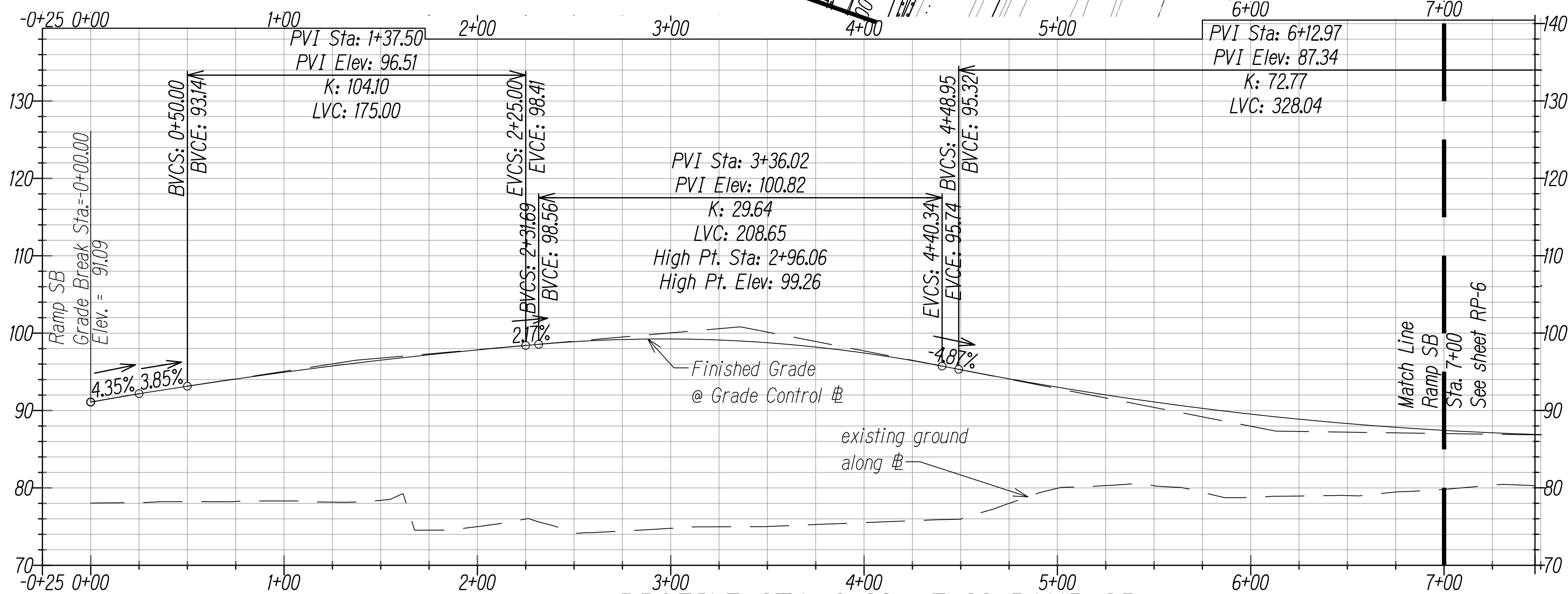
Line Data		
Line #	Length	Direction
L8	57.69'	305°36'50"
L11	127.39'	195°23'00"
L12	182.32'	305°36'50"

Curve Data						
Curve #	Δ	Δ/2	R	C	Lc	T
C6	110°13'50"	55°06'55"	243.00'	467.50'	398.67'	348.53'
C10	110°13'50"	55°06'55"	255.00'	490.59'	418.35'	365.74'



PLAN STA. 0+00 - 7+00 RAMP SB

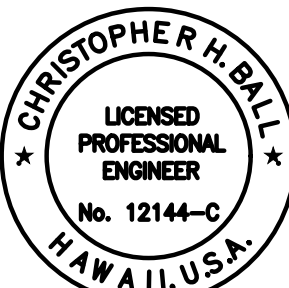
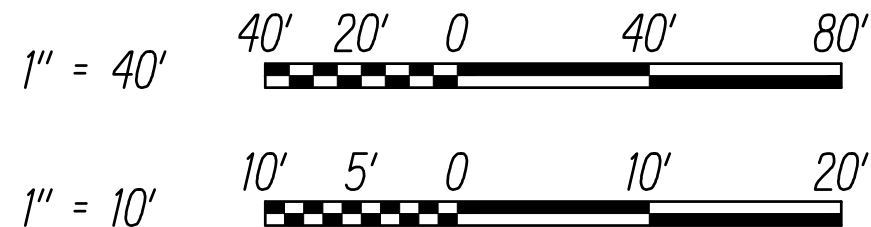
Scale: 1" = 40'



PROFILE STA. 0+00 - 7+00 RAMP SB

Scale: Hori: 1" = 40'  
Vert: 1" = 10'

Graphic Scale



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MITSUNAGA & ASSOCIATES, INC. 4/30/2024  
NOTE: Contractor to check and verify dimensions at job before proceeding with work.

DATE	REVISION
11/17/2022	Added Maintenance Access Road
10/21/2022	Revised reference on callout 6

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

RAMP SB PLAN AND PROFILE 1

INTERSTATE ROUTE H-1  
ADDITION AND MODIFICATION OF FREEWAY ACCESS  
(Kapolei Interchange Complex), Phase 3  
Federal Aid Project No. NH-HI-K(271)

Scale: As Noted Date: August 2022

SHEET NO. RP-5 OF 167 SHEETS

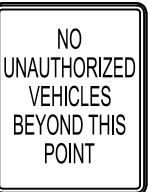


Line Data		
Line #	Length	Direction
L1	9.98	126° 42' 01"
L2	91.19	79° 05' 50"
L3	34.04	320° 26' 52"
L4	24.88	230° 26' 52"
L5	24.80	320° 26' 52"
L6	29.88	50° 26' 52"
L7	40.00	50° 26' 52"
L8	47.04	140° 26' 52"
L9	34.04	140° 26' 52"
L10	74.93	259° 05' 50"
L11	39.09	253° 23' 11"
L12	8.00	304° 06' 54"

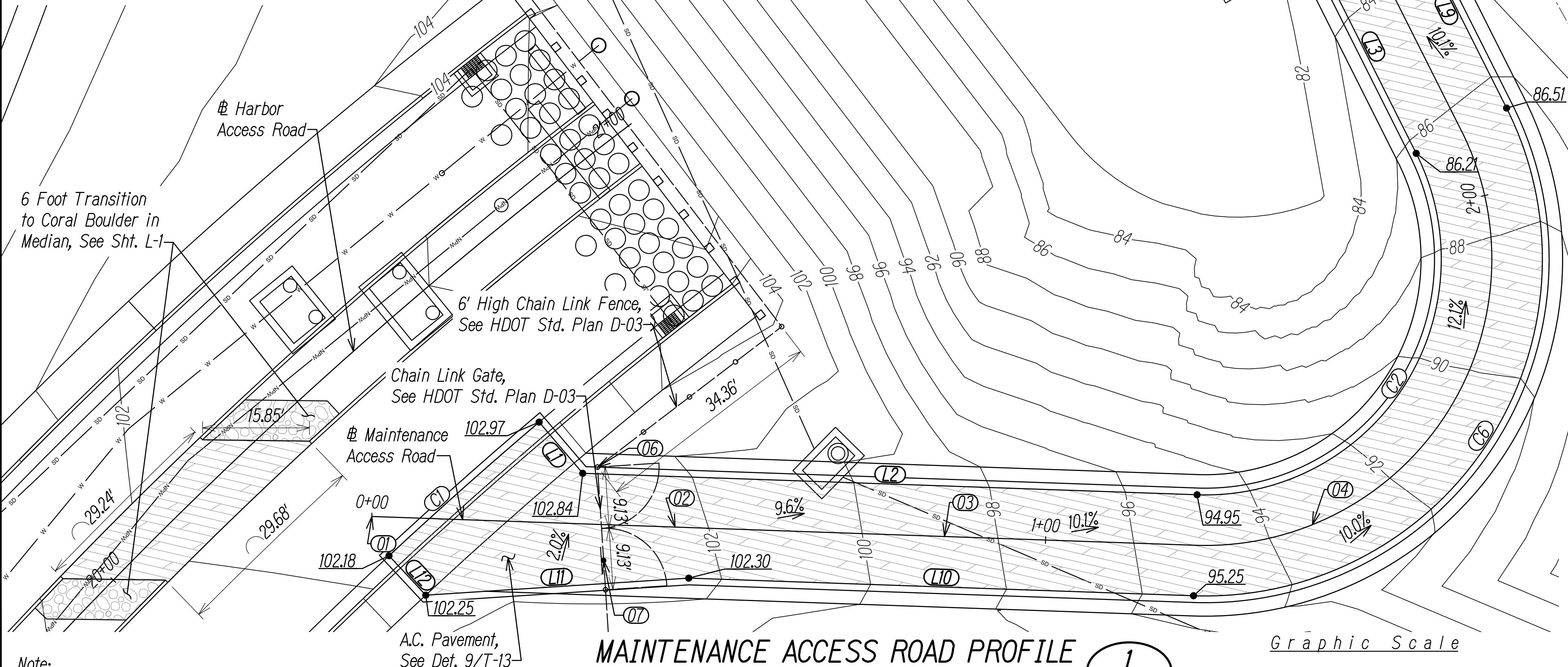
Curve Data						
Curve #	Δ	Δ / 2	R	C	Lc	T
C1	2°35'07"	1°17'33"	661.00'	29.82'	29.82'	14.91'
C2	118°38'58"	59°19'29"	35.00'	72.48'	60.21'	59.00'
C3	90°00'00"	45°00'00"	25.00'	39.27'	35.36'	25.00'
C4	90°00'00"	45°00'00"	20.00'	31.42'	28.28'	20.00'
C5	90°00'00"	45°00'00"	25.00'	39.27'	35.36'	25.00'
C6	118°38'58"	59°19'29"	50.00'	103.54'	86.01'	84.29'

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-1(271)	2022	ADD. 38 S-1	167

- 01 Maintenance Access Road Sta. 0+00.00- Harbor Access Road Sta. 20+34.21  
Offset: 20.35' Rt.
- 02 Maintenance Access Road Sta. 0+45.00- Harbor Access Road Sta. 20+69.07  
Offset: 50.91' Rt.  
Begin Typical Section 1  
See Det. 1/R-11 S1
- 03 Maintenance Access Road Sta. 0+85.00- Harbor Access Road Sta. 21+02.60  
Offset: 76.91' Rt.  
End Typical Section 1  
Begin Typical Section 2-  
See Det. 2/R-11 S1
- 04 Maintenance Access Road Sta. 1+40.00- Harbor Access Road Sta. 21+55.43  
Offset: 106.74' Rt.  
End Typical Section 2  
Begin Typical Section 3  
See Det. 3/R-11 S1
- 05 Maintenance Access Road Sta. 2+70.00- Harbor Access Road Sta. 22+12.66  
Offset: 7.69' Rt.  
End Typical Section 3
- 06 Maintenance Access Road Sta. 0+33.21- Harbor Access Road Sta. 20+65.80  
Offset: 36.70' Rt.  
Begin Chain Link Gate  
HWY-0 to provide lock
- 07 Maintenance Access Road Sta. 0+34.59- Harbor Access Road Sta. 20+56.94  
Offset: 47.80' Rt.  
Mount Sign to Fence



Custom  
12"x18"



Note:  
1. See sheet R-2 S-2 for Maintenance Access Road Profile.

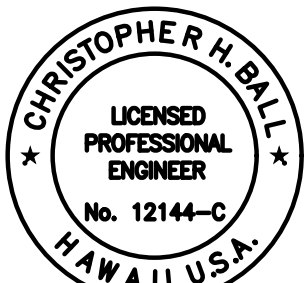
MAINTENANCE ACCESS ROAD PROFILE

1  
R-2 S-1

Scale: 1" = 10'

Graphic Scale

1" = 10' 10' 5' 0 10' 20'



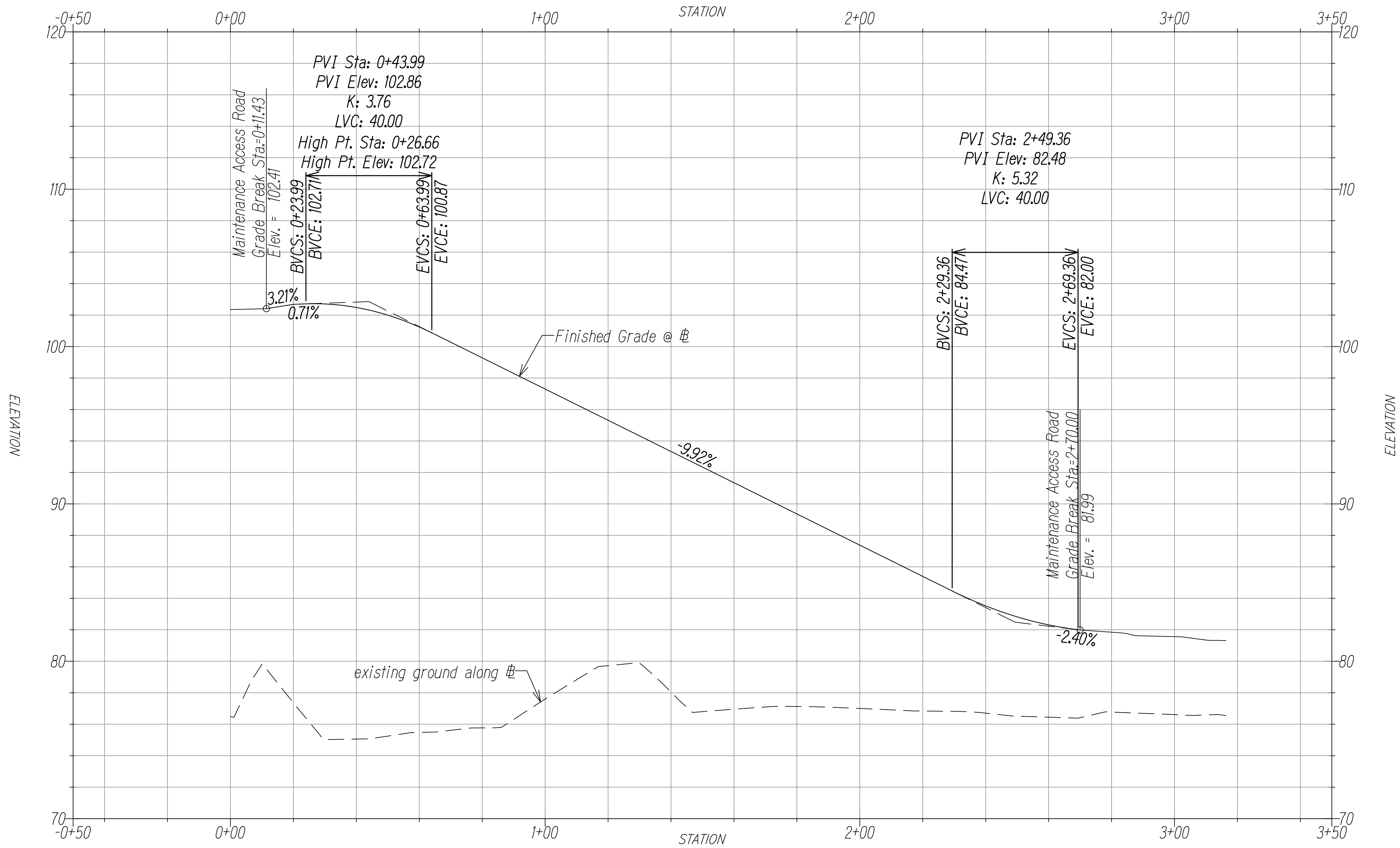
This work was prepared by me or under my supervision

Chris Ball  
MITSUNAGA & ASSOCIATES, INC. 4/30/2024  
NOTE: Contractor to check and verify dimensions at job before proceeding with work.

11/17/2022	Added Maintenance Access Road
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<b>MAINTENANCE ACCESS ROAD</b>	
INTERSTATE ROUTE H-1 ADDITION AND MODIFICATION OF FREEWAY ACCESS (Kapolei Interchange Complex), Phase 3 Federal Aid Project No. NH-H1-1(271)	
Scale: As Noted	Date: August 2022
SHEET No. <b>R-2 S-1</b> OF <b>167</b> SHEETS	

ADD. 38 S-1

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-1(271)	2022	ADD. 38 S-2	167



MAINTENANCE ACCESS ROAD PROFILE

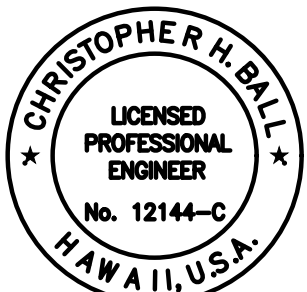
Horizontal Scale: 1" = 10'  
Vertical Scale: 1" = 4'

1  
R-2 S-2

Graphic Scale

1" = 10' 4' 2' 0 4' 8'

1" = 10' 10' 5' 0 10' 20'



This work was prepared by me or under my supervision

Chris Ball

MITSUNAGA & ASSOCIATES, INC. 4/30/2024 EXP. DATE

NOTE: Contractor to check and verify dimensions at job before proceeding with work.

DATE	11/17/2022	REVISION	Added Maintenance Access Road
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION <b>MAINTENANCE ACCESS ROAD PROFILE</b> INTERSTATE ROUTE H-1 ADDITION AND MODIFICATION OF FREEWAY ACCESS (Kapolei Interchange Complex), Phase 3 Federal Aid Project No. NH-H1-1(271) Scale: As Noted Date: August 2022			

SHEET No. R-2 S-2 OF 167 SHEETS

ADD. 38 S-2

ORIGINAL PLAN	NO.	DATE
SURVEY PLOTTED BY		
DESIGNED BY		
QUANTITIES BY		
CHECKED BY		



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-HI-K(271)	2022	ADD. 65	167

Legend

- Property Line
- Limits of Construction
- Limits of Grading & Disturbed Area
- Finish Grade Contour
- Exist. Grade Contour
- Compost Filter Sock, See Det. 02/BMP-6
- Good Neighbor Construction/Dust Fence, See Det. 06/BMP-6
- Straw Wattle, See Det. 01/BMP-5
- Drain Line
- Stabilized Construction Access, See Det. 01/BMP-6
- Grassed Area
- Flow Arrow
- Drain Inlet
- Drain Inlet Protection, See Det. 04/BMP-6
- Catch Basin Protection, See Det. 03/BMP-6

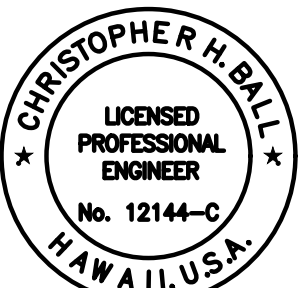
Note:

- Sediment and Erosion Control BMP measures shown in the Contract Documents are minimum BMP requirements and do not constitute an acceptable and/or complete Sediment Control Plan. The Contractor shall incorporate additional BMPs based upon their means and methods considering site conditions and construction sequence in accordance with the Contract Documents including applicable permit document requirements. Cost shall be included in Pay Item 209.0100, Installation, Maintenance, Monitoring, and Removal of BMP.

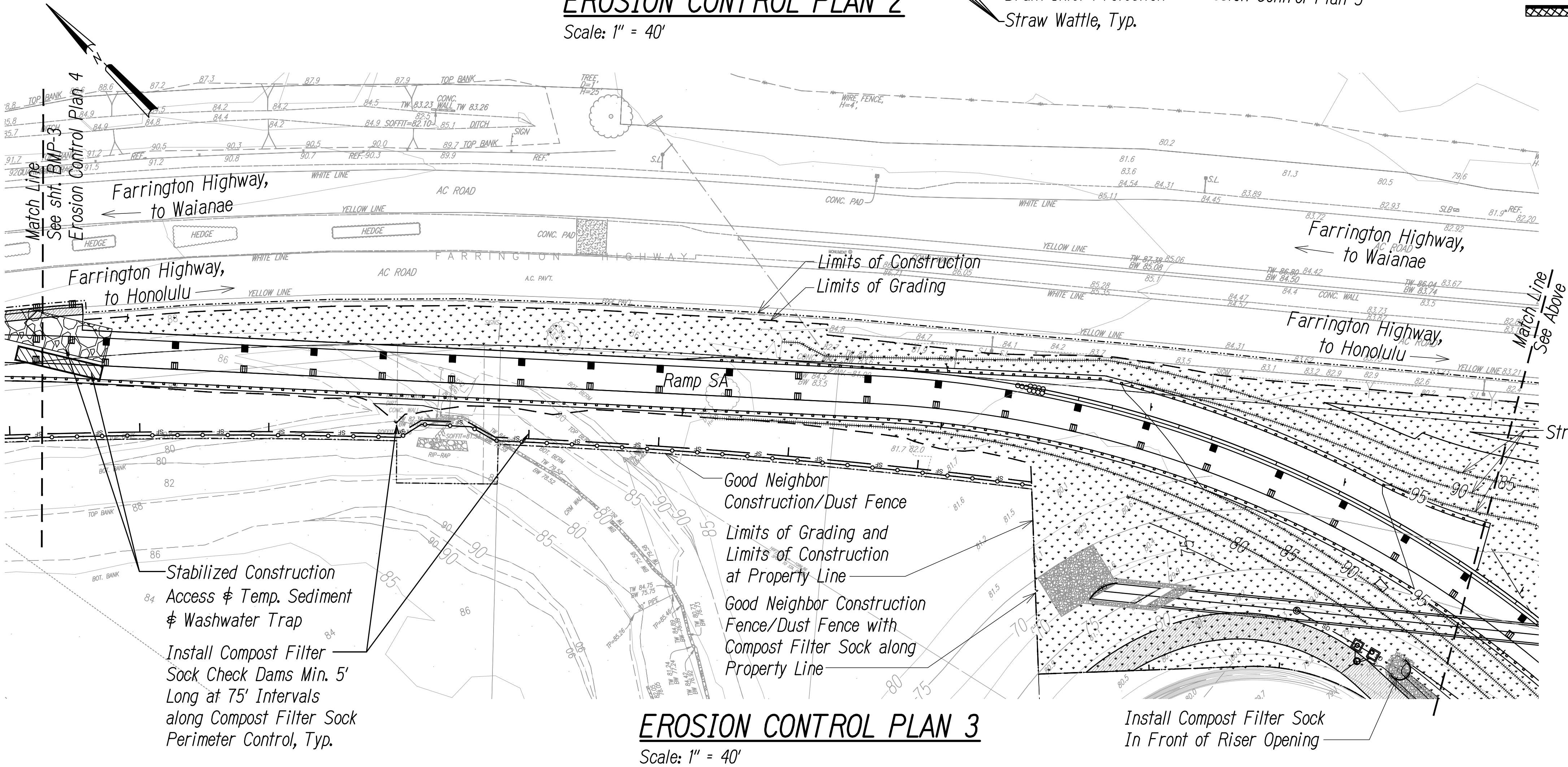
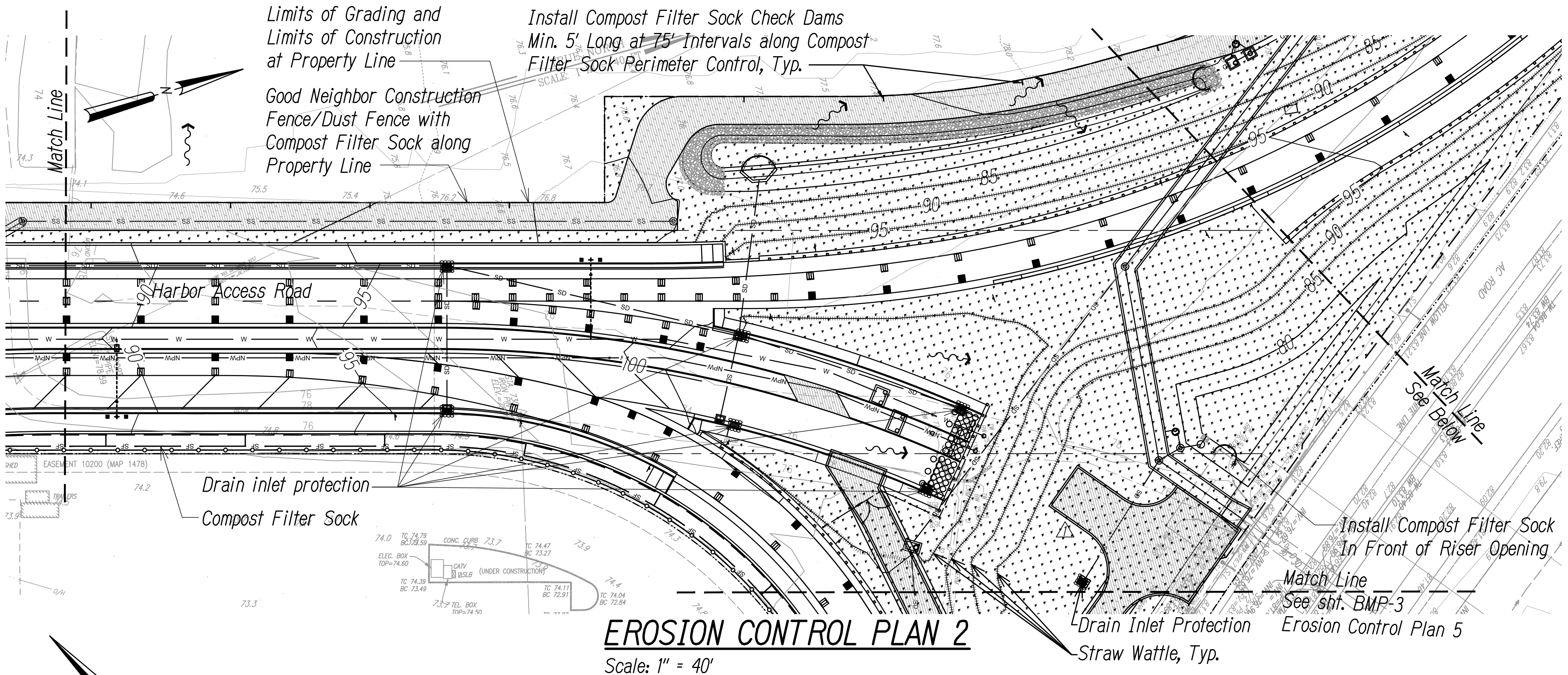
Graphic Scale

1" = 40' 40' 20' 0 40' 80'

11/17/2022	Added Maintenance Access Road
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<b>EROSION CONTROL PLAN 2</b>	
INTERSTATE ROUTE H-1 ADDITION AND MODIFICATION OF FREEWAY ACCESS (Kapolei Interchange Complex), Phase 3 Federal Aid Project No. NH-HI-K(271)	
Scale: As Noted	Date: August 2022



Chris Ball  
MITSUNAGA & ASSOCIATES, INC. 4/30/2024  
NOTE: Contractor to check and verify dimensions at job before proceeding with work.



SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
NOTED BY	
CHECKED BY	



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-HI-K(271)	2022	ADD. 66	167

Legend

- Property Line
- Limits of Construction
- Limits of Grading & Disturbed Area
- Finish Grade Contour
- Exist. Grade Contour
- Compost Filter Sock, See Det. 02/BMP-6
- Good Neighbor Construction/Dust Fence, See Det. 06/BMP-6
- Straw Wattle, See Det. 01/BMP-5
- Drain Line
- Stabilized Construction Access, See Det. 01/BMP-6
- Grassed Area
- Flow Arrow
- Drain Inlet
- Drain Inlet Protection, See Det. 04/BMP-6
- Catch Basin Protection, See Det. 03/BMP-6

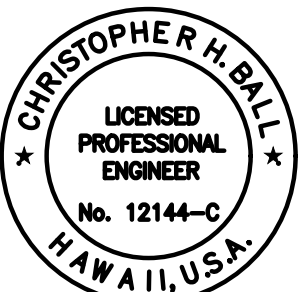
Note:

- Sediment and Erosion Control BMP measures shown in the Contract Documents are minimum BMP requirements and do not constitute an acceptable and/or complete Sediment Control Plan. The Contractor shall incorporate additional BMPs based upon their means and methods considering site conditions and construction sequence in accordance with the Contract Documents including applicable permit document requirements. Cost shall be included in Pay Item 209.0100, Installation, Maintenance, Monitoring, and Removal of BMP.

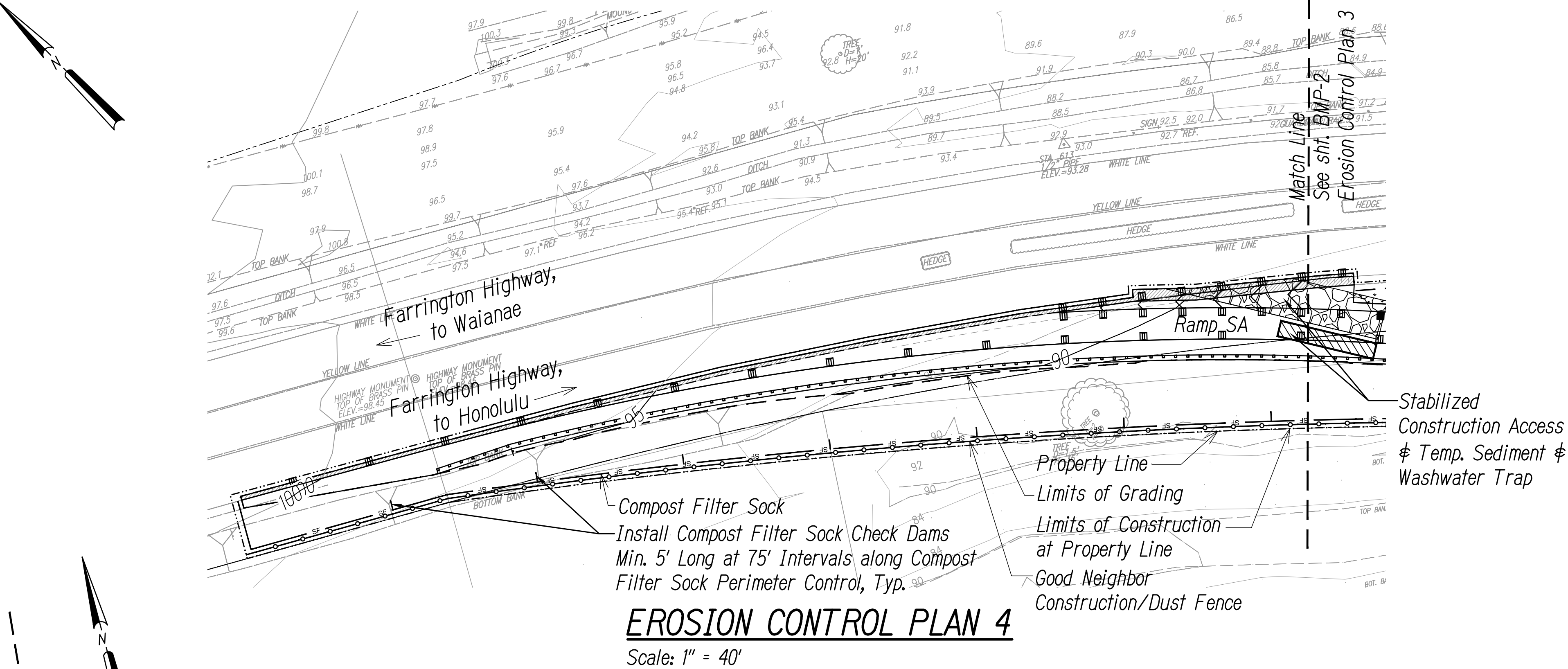
Graphic Scale

1" = 40' 40' 20' 0 40' 80'

11/17/2022	Added Maintenance Access Road
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<b>EROSION CONTROL PLAN 3</b>	
INTERSTATE ROUTE H-1 ADDITION AND MODIFICATION OF FREEWAY ACCESS (Kapolei Interchange Complex), Phase 3 Federal Aid Project No. NH-HI-K(271)	
Scale: As Noted	Date: August 2022

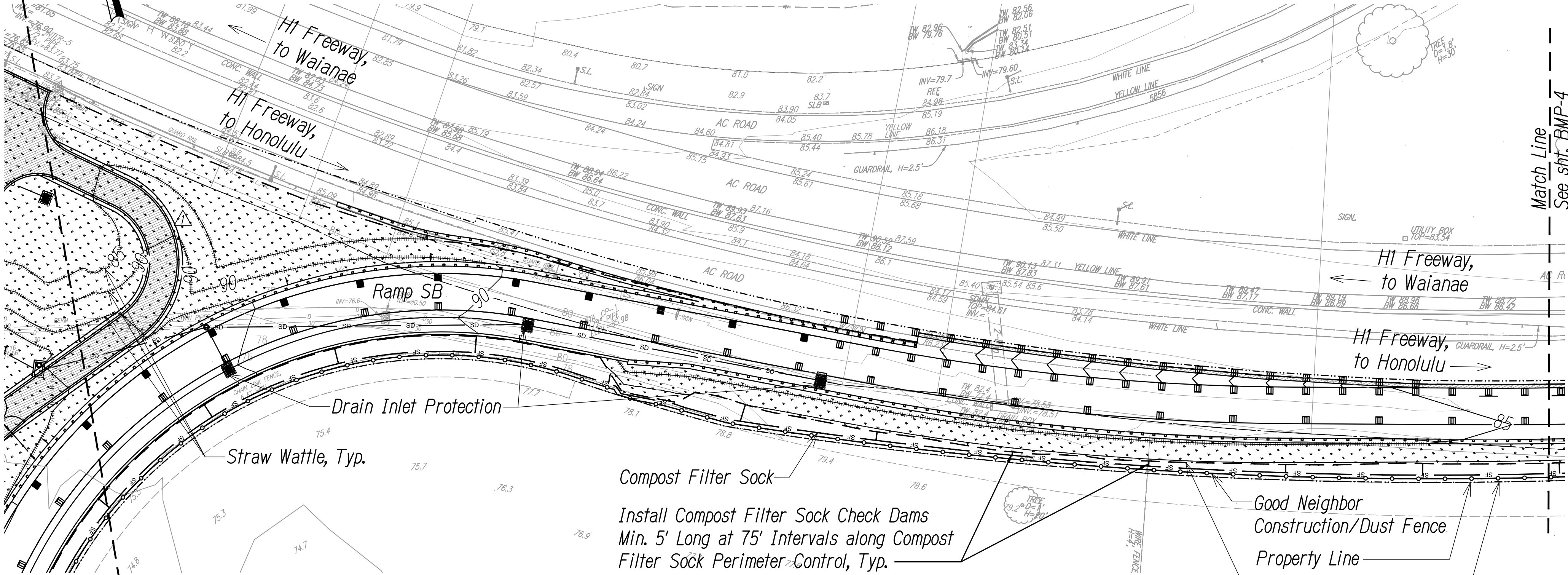


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Chris Ball  
MITSUNAGA & ASSOCIATES, INC. 4/30/2024  
NOTE: Contractor to check and verify dimensions at job before proceeding with work.



EROSION CONTROL PLAN 5

Scale: 1" = 40'



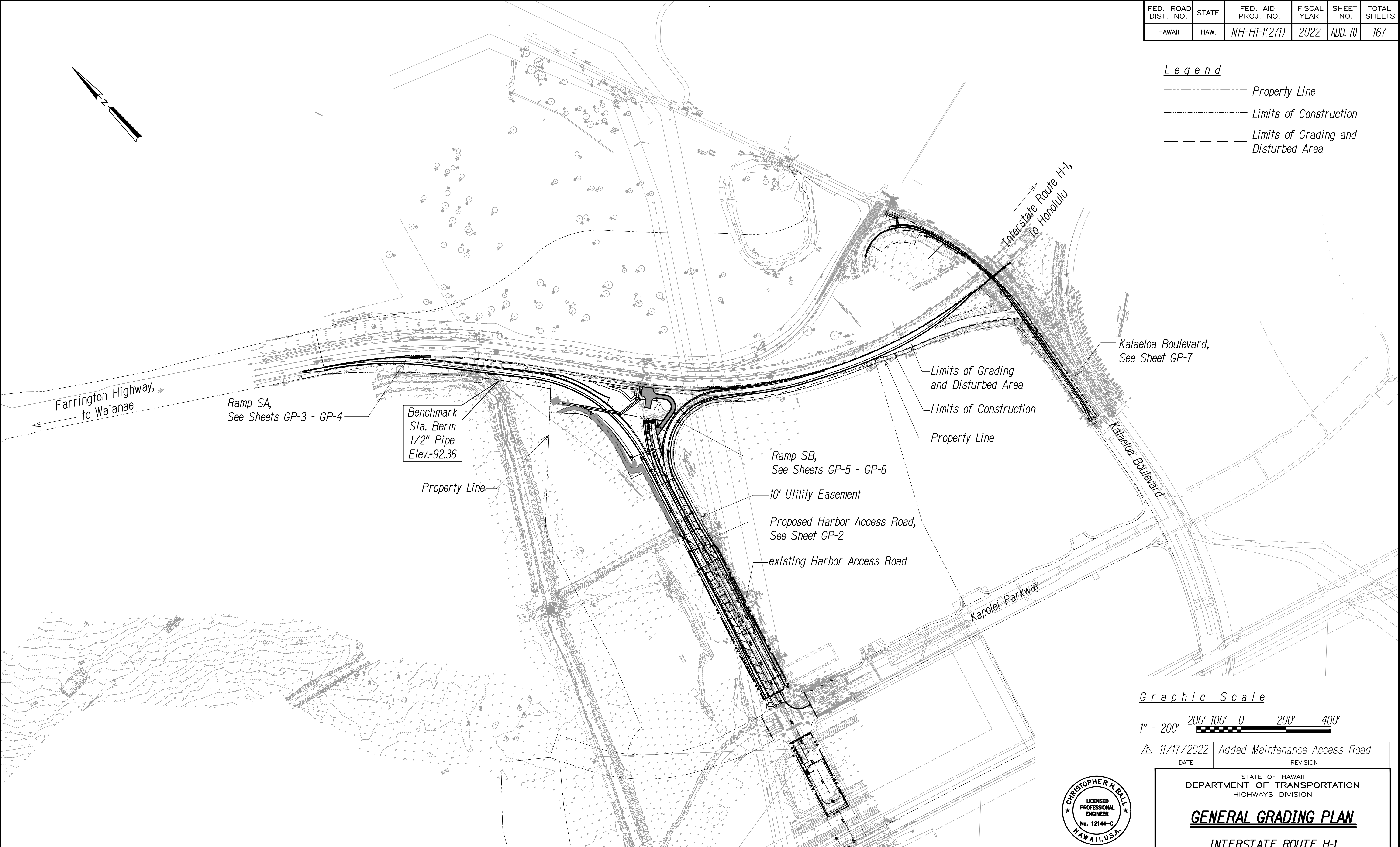
SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
NOTED BY	
CHECKED BY	

Match Line  
See sht. BMP-2  
Erosion Control Plan 2

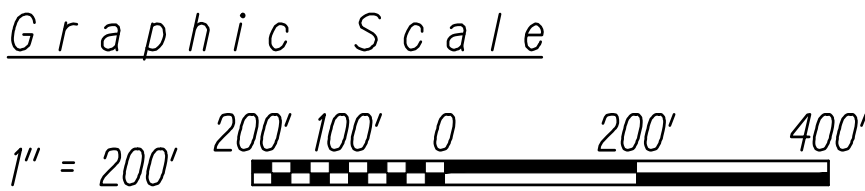


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-K(271)	2022	ADD. 70	167

- Legend*
- Property Line
  - Limits of Construction
  - Limits of Grading and Disturbed Area



**GENERAL GRADING PLAN**  
Scale: 1" = 200'



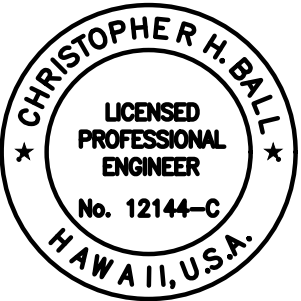
DATE	REVISION
11/17/2022	Added Maintenance Access Road

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**GENERAL GRADING PLAN**

INTERSTATE ROUTE H-1  
ADDITION AND MODIFICATION OF FREEWAY ACCESS  
(Kapolei Interchange Complex), Phase 3  
Federal Aid Project No. NH-H1-K(271)

Scale: As Noted      Date: August 2022



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*Chris Ball*  
MITSUNAGA & ASSOCIATES, INC.    4/30/2024    EXP. DATE

NOTE: Contractor to check and verify dimensions at job before proceeding with work.

SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
NOTED BY	
CHECKED BY	

ORIGINAL PLAN

NOTE BOOK

No.



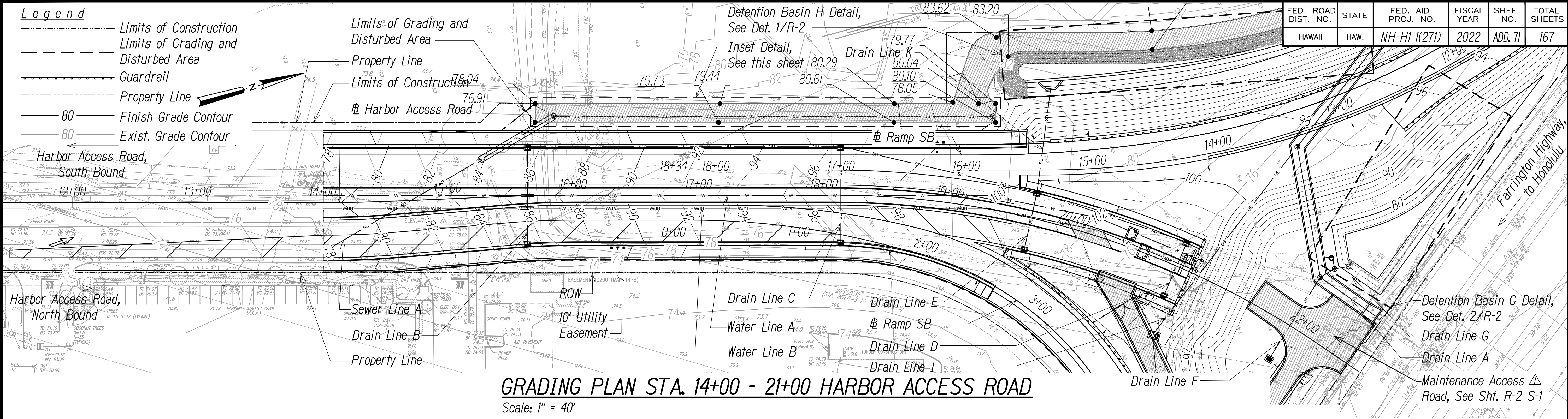
Legend

- Limits of Construction
- - - Limits of Grading and Disturbed Area
- - - Guardrail
- - - Property Line
- 80 --- Finish Grade Contour
- 80 --- Exist. Grade Contour

- Limits of Grading and Disturbed Area
- - - Property Line
- - - Limits of Construction
- 80 --- Harbor Access Road

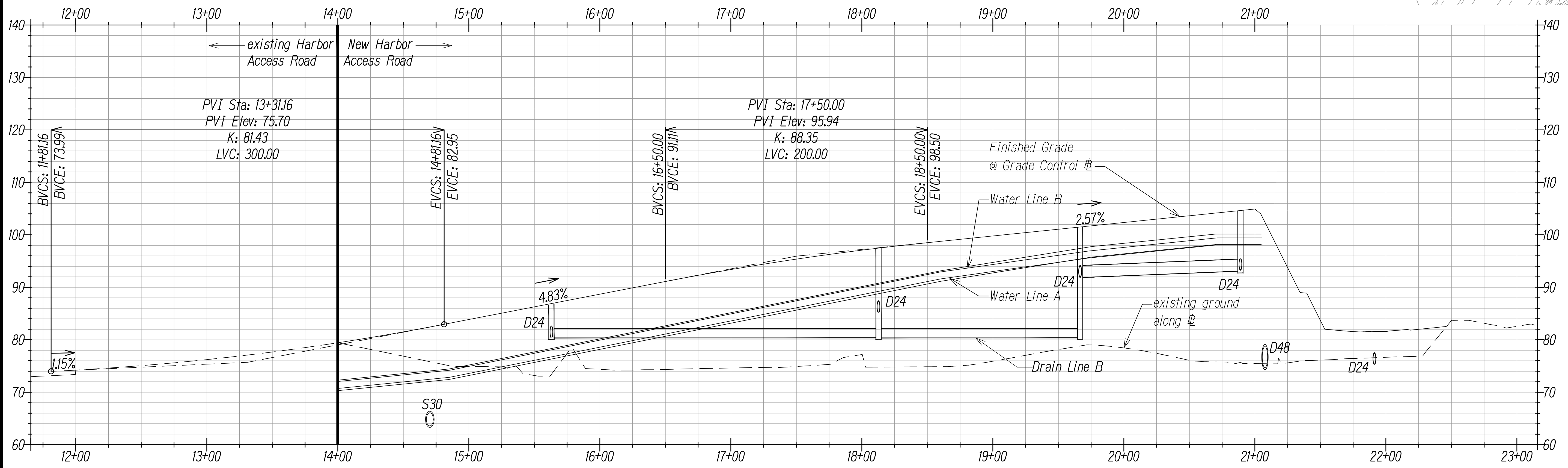
Detention Basin H Detail,  
See Det. 1/R-2  
Inset Detail,  
See this sheet

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-HI-K(271)	2022	ADD. 71	167



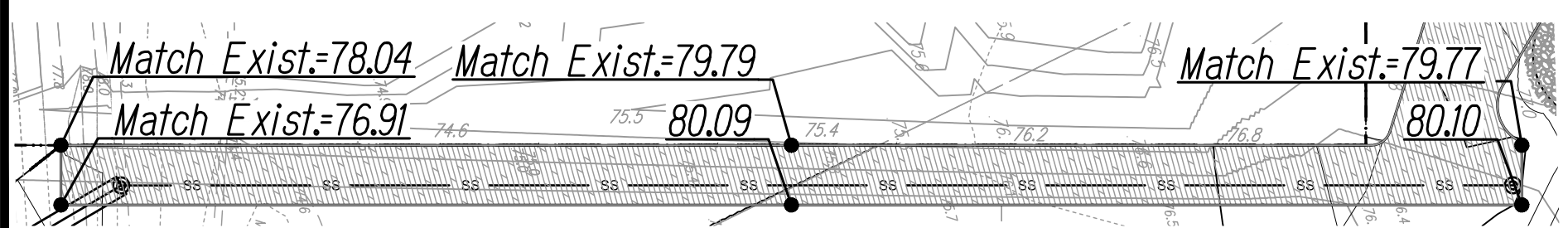
GRADING PLAN STA. 14+00 - 21+00 HARBOR ACCESS ROAD

Scale: 1" = 40'



GRADING PROFILE STA. 14+00 - 21+00 HARBOR ACCESS ROAD

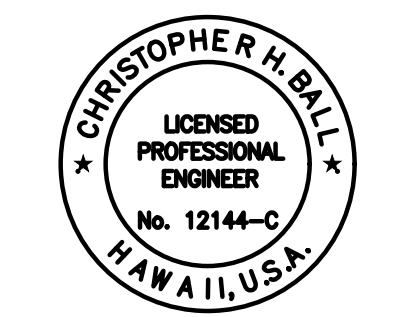
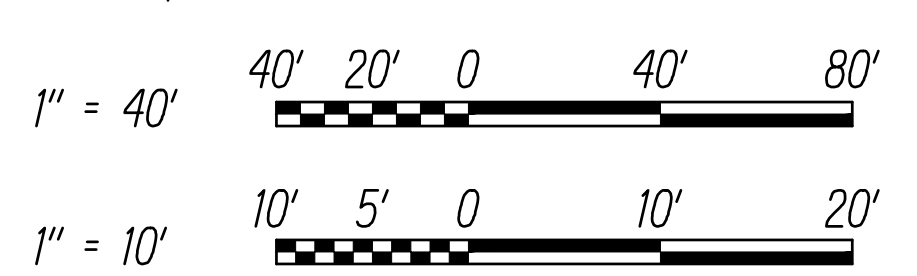
Scale: Horiz. 1" = 40'  
Vert. 1" = 10'



INSET DETAIL

Scale: 1" = 40'

Graphic Scale



This work was prepared by me or under my supervision

Chris Ball  
MITSUNAGA & ASSOCIATES, INC. 4/30/2024  
EXP. DATE

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

GRADING PLAN 1

INTERSTATE ROUTE H-1  
ADDITION AND MODIFICATION OF FREEWAY ACCESS  
(Kapolei Interchange Complex), Phase 3  
Federal Aid Project No. NH-HI-K(271)

Scale: As Noted Date: August 2022

SHEET NO. GP-2 OF 167 SHEETS

SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
QUANTITIES BY	
CHECKED BY	

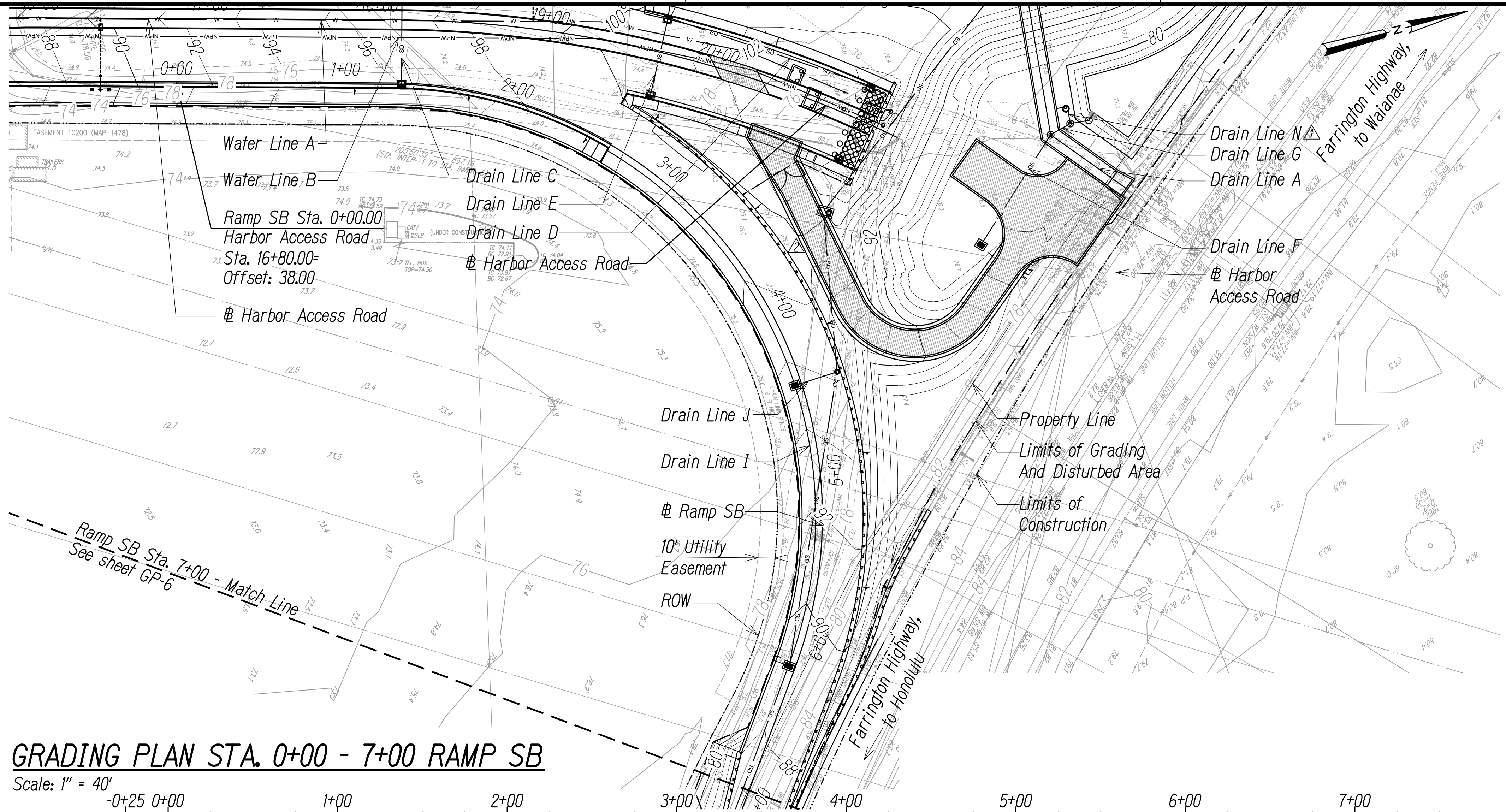
DATE	11/17/2022	REVISION	Added Maintenance Access Road
------	------------	----------	-------------------------------



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-K(271)	2022	ADD. 74	167

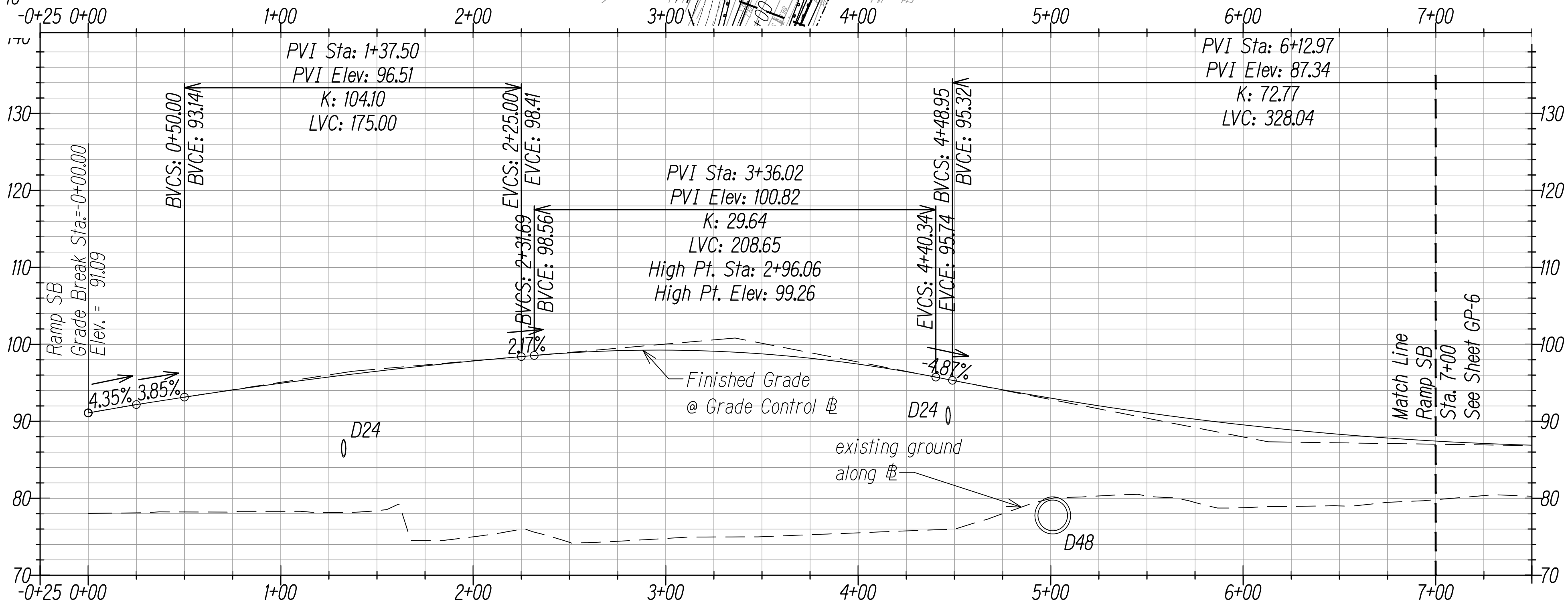
Legend

- Limits of Construction
- Limits of Grading and Disturbed Area
- Guardrail
- Property Line
- 80 ----- Finish Grade Contour
- 80 ----- Exist. Grade Contour



GRADING PLAN STA. 0+00 - 7+00 RAMP SB

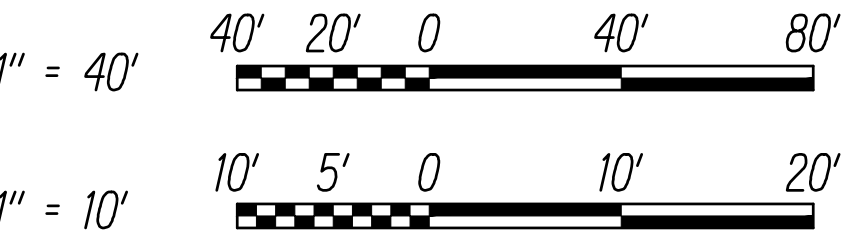
Scale: 1" = 40'



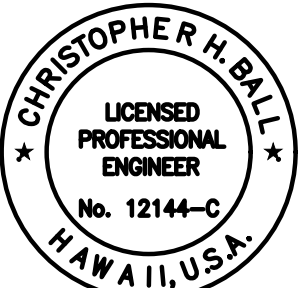
GRADING PROFILE STA. 0+00 - 7+00 RAMP SB

Scale: Horiz. 1" = 40'  
Vert. 1" = 10'

Graphic Scale



11/17/2022	Added Maintenance Access Road
10/21/2022	Added DL N
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<b>GRADING PLAN 4</b>	
INTERSTATE ROUTE H-1 ADDITION AND MODIFICATION OF FREEWAY ACCESS (Kapolei Interchange Complex), Phase 3 Federal Aid Project No. NH-H1-K(271)	
Scale: As Noted	Date: August 2022

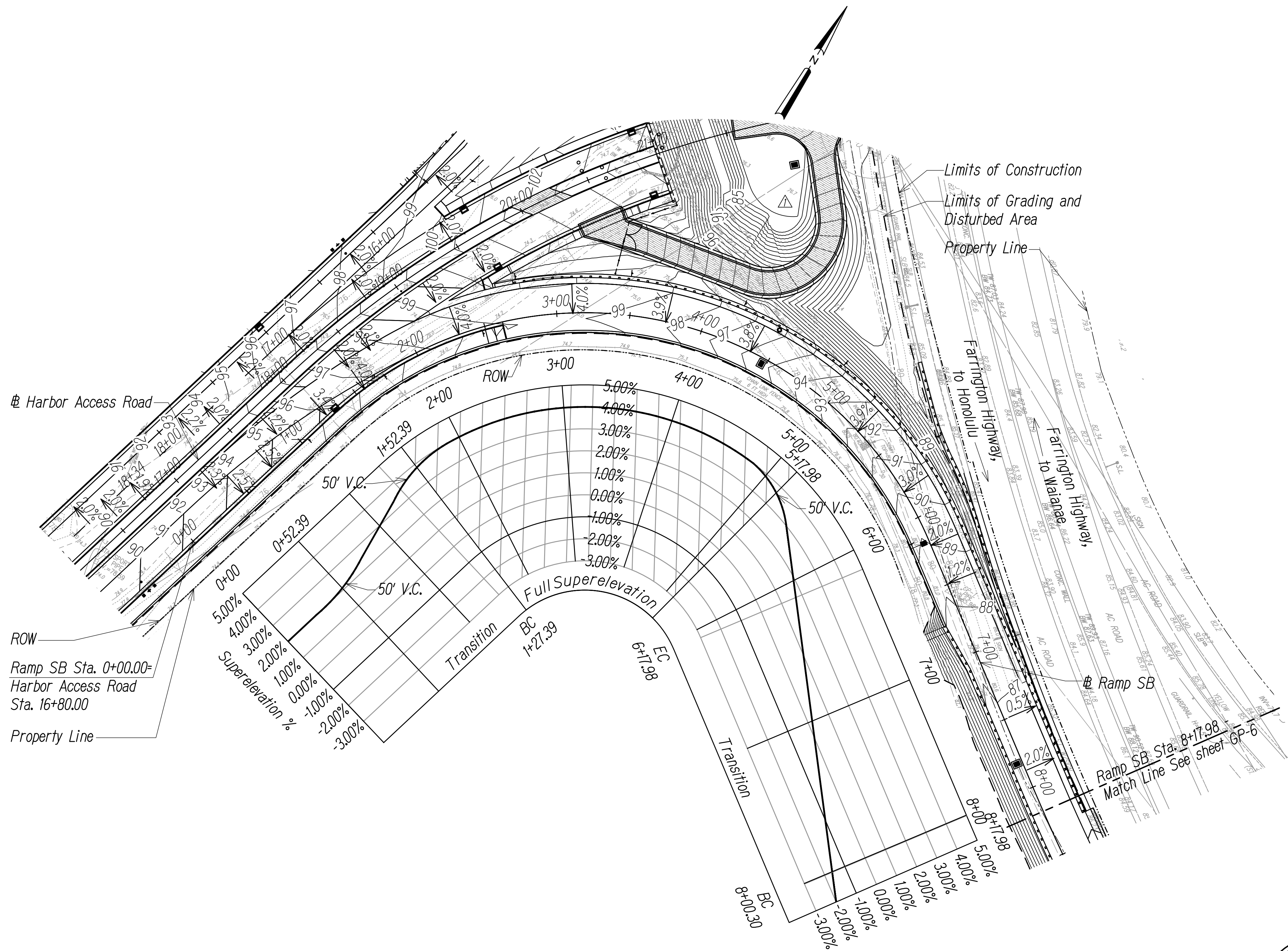


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MITSUNAGA & ASSOCIATES, INC. 4/30/2024 EXP. DATE  
NOTE: Contractor to check and verify dimensions at job before proceeding with work.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-HI-1(271)	2022	ADD. 79	167

Legend

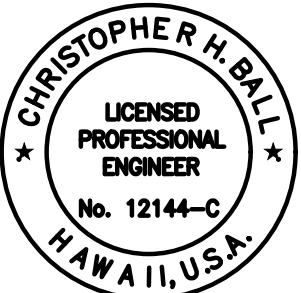
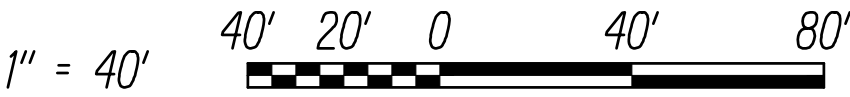
- Limits of Construction
- Limits of Grading and Disturbed Area
- Guardrail
- Property Line
- 80----- Finish Grade Contour
- 80----- Exist. Grade Contour



SUPERELEVATION PLAN STA. 0+00 - 8+17.98 RAMP SB

Scale: 1" = 40'

Graphic Scale



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Chris Ball  
MITSUNAGA & ASSOCIATES, INC. 4/30/2024  
NOTE: Contractor to check and verify dimensions at job before proceeding with work.

DATE	REVISION
11/17/2022	Added Maintenance Access Road

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**SUPERELEVATION PLAN 3**

INTERSTATE ROUTE H-1  
ADDITION AND MODIFICATION OF FREEWAY ACCESS  
(Kapolei Interchange Complex), Phase 3  
Federal Aid Project No. NH-HI-1(271)

Scale: As Noted Date: August 2022

ORIGINAL PLAN	DATE
NOTE BOOK	
NO.	



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-HI-K(271)	2022	ADD. 81	167

Legend

- Property Line
- Limits of Construction
- Limits of Grading and Disturbed Area

Drain Line M  
Ramp C (exist)

Ramp I (exist)

Drain Line L  
Ramp 1B (exist)  
Ramp 1A (exist)

Kaleloa Boulevard

Property Line  
Clean Exist. Drainlines  
Drain Line G  
Drain Line F

Limits Of Construction  
Clean Exist. Drainlines

Farrington Highway, to Honolulu

Ramp SB

Limits Of Grading and Disturbed Area  
Property Line

Drain Line I  
Drain Line J  
Drain Line D  
Drain Line E  
Non-potable Water Line B  
Drain Line C

Drain Line B Sta. 4+98.58  
Drain Line B  
Sewer Line A  
Potable Water Line A  
10' Utility Easement  
Proposed Harbor Access Road  
existing Harbor Access Road

Benchmark Sta. Berm 1/2" Pipe Elev.=92.36

Drain Line A Sta. 0+00.00

Farrington Highway, to Waianae

Ramp SA

352° 40' 33" 1079.23

Drain Line H  
Drain Line K

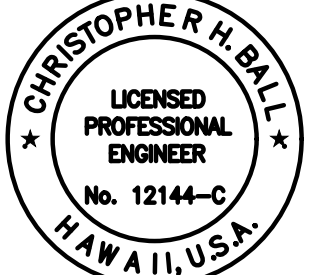
Drain Line A

Clean Exist. Drianlines

Graphic Scale

1" = 100' 100' 50' 0 100' 200'

11/17/2022	Added Maintenance Access Road
10/21/2022	Revised DL K location, added DL N
DATE	REVISION



This work was prepared by me or under my supervision  
MITSUNAGA & ASSOCIATES, INC. 4/30/2024 EXP. DATE  
Chris Ball

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**GENERAL DRAINAGE PLAN**

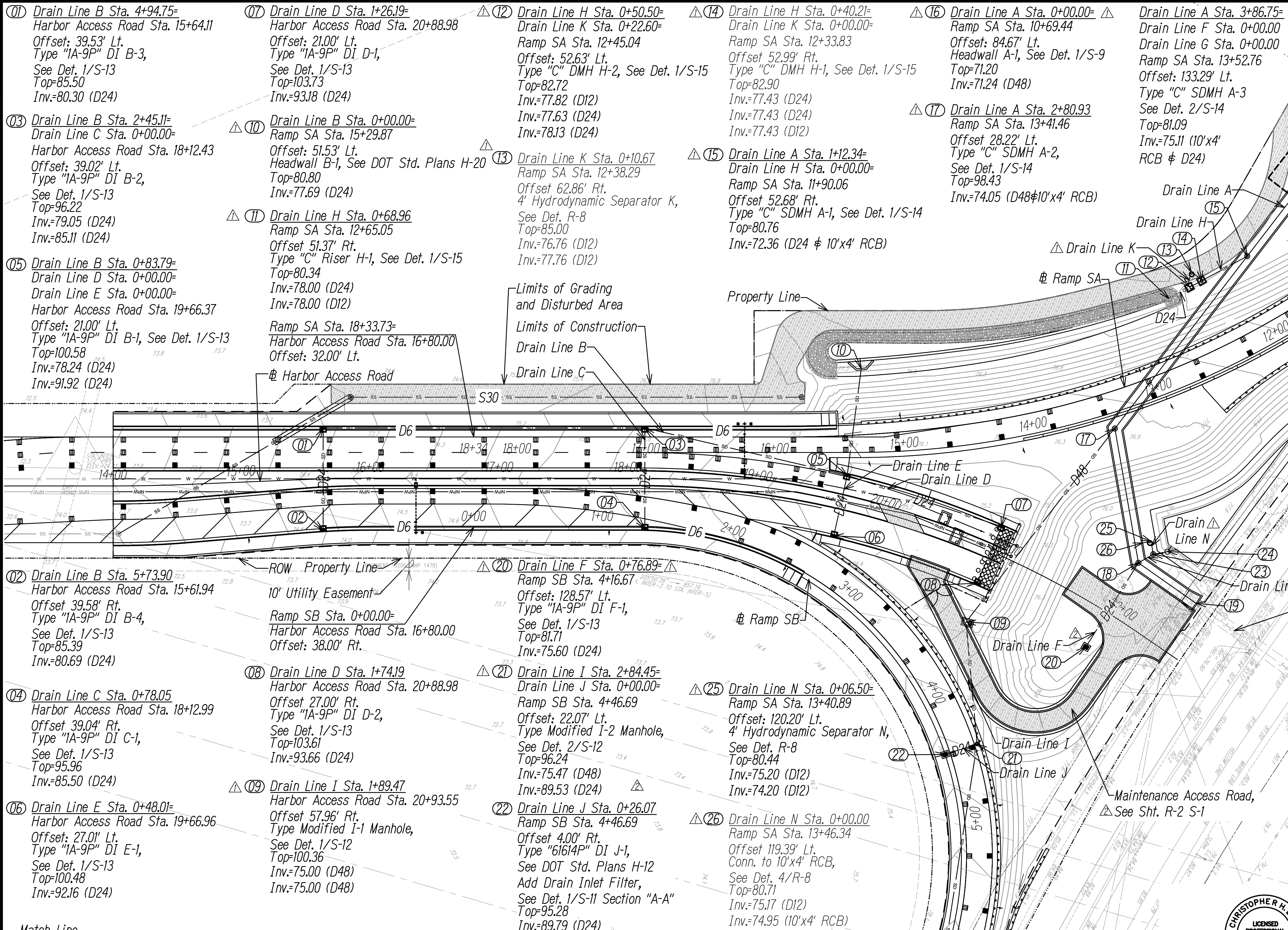
INTERSTATE ROUTE H-1  
ADDITION AND MODIFICATION OF FREEWAY ACCESS  
(Kapolei Interchange Complex), Phase 3  
Federal Aid Project No. NH-HI-K(271)

Scale: As Noted Date: August 2022

GENERAL DRAINAGE PLAN  
Scale: 1" = 100'

SURVEY PLOTTED BY	DATE
DESIGNED BY	
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	





FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-HI-K(271)	2022	ADD. 82	167

- CRM Headwall, See Det. Sht. R-5
- Legend**
- Limits of Construction
  - Limits of Grading and Disturbed Area
  - Guardrail
  - Property Line
  - 80 --- Finish Grade Contour
  - 80 --- Exist. Grade Contour

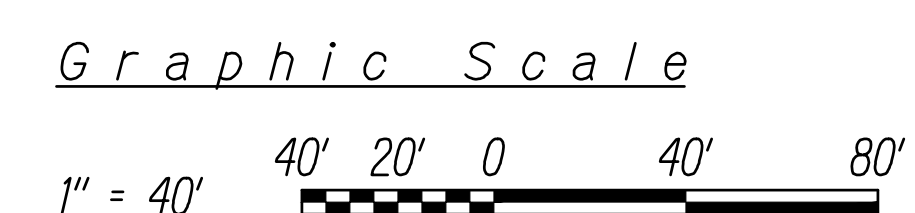
- 01 Drain Line B Sta. 4+94.75= Harbor Access Road Sta. 15+64.11  
Offset: 39.53' Lt.  
Type "IA-9P" DI B-3,  
See Det. 1/S-13  
Top=85.50  
Inv.=80.30 (D24)
- 03 Drain Line B Sta. 2+45.11= Drain Line C Sta. 0+00.00= Harbor Access Road Sta. 18+12.43  
Offset: 39.02' Lt.  
Type "IA-9P" DI B-2,  
See Det. 1/S-13  
Top=96.22  
Inv.=79.05 (D24)  
Inv.=85.11 (D24)
- 05 Drain Line B Sta. 0+83.79= Drain Line D Sta. 0+00.00= Drain Line E Sta. 0+00.00= Harbor Access Road Sta. 19+66.37  
Offset: 21.00' Lt.  
Type "IA-9P" DI B-1, See Det. 1/S-13  
Top=100.58  
Inv.=78.24 (D24)  
Inv.=91.92 (D24)
- 07 Drain Line D Sta. 1+26.19= Harbor Access Road Sta. 20+88.98  
Offset: 21.00' Lt.  
Type "IA-9P" DI D-1,  
See Det. 1/S-13  
Top=103.73  
Inv.=93.18 (D24)
- 10 Drain Line B Sta. 0+00.00= Ramp SA Sta. 15+29.87  
Offset: 51.53' Lt.  
Headwall B-1, See DOT Std. Plans H-20  
Top=80.80  
Inv.=77.69 (D24)
- 11 Drain Line H Sta. 0+68.96 Ramp SA Sta. 12+65.05  
Offset 51.37' Rt.  
Type "C" Riser H-1, See Det. 1/S-15  
Top=80.34  
Inv.=78.00 (D24)  
Inv.=78.00 (D12)  
Ramp SA Sta. 18+33.73= Harbor Access Road Sta. 16+80.00  
Offset: 32.00' Lt.
- 12 Drain Line H Sta. 0+50.50= Drain Line K Sta. 0+22.60= Ramp SA Sta. 12+45.04  
Offset: 52.63' Lt.  
Type "C" DMH H-2, See Det. 1/S-15  
Top=82.72  
Inv.=77.82 (D12)  
Inv.=77.63 (D24)  
Inv.=78.13 (D24)
- 13 Drain Line K Sta. 0+10.67 Ramp SA Sta. 12+38.29  
Offset 62.86' Rt.  
4' Hydrodynamic Separator K, See Det. R-8  
Top=85.00  
Inv.=76.76 (D12)  
Inv.=77.76 (D12)
- 14 Drain Line H Sta. 0+40.21= Drain Line K Sta. 0+00.00= Ramp SA Sta. 12+33.83  
Offset 52.99' Rt.  
Type "C" DMH H-1, See Det. 1/S-15  
Top=82.90  
Inv.=77.43 (D24)  
Inv.=77.43 (D12)
- 15 Drain Line A Sta. 1+12.34= Drain Line H Sta. 0+00.00= Ramp SA Sta. 11+90.06  
Offset 52.68' Rt.  
Type "C" SDMH A-1, See Det. 1/S-14  
Top=80.76  
Inv.=72.36 (D24 & 10'x4' RCB)
- 16 Drain Line A Sta. 0+00.00= Ramp SA Sta. 10+69.44  
Offset: 84.67' Lt.  
Headwall A-1, See Det. 1/S-9  
Top=71.20  
Inv.=71.24 (D48)
- 17 Drain Line A Sta. 2+80.93 Ramp SA Sta. 13+41.46  
Offset 28.22' Lt.  
Type "C" SDMH A-2, See Det. 1/S-14  
Top=98.43  
Inv.=74.05 (D48&10'x4' RCB)
- 19 Drain Line A Sta. 4+41.29= Ramp SA Sta. 13+25.99  
Offset: 176.61' Lt.  
Headwall A-2  
See Det. S-10  
Top=81.78  
Inv.=75.65 (10'x4' RCB)  
Inv.=76.65 ((3) D30)
- 23 Drain Line G Sta. 0+13.32= Drain Line N Sta. 0+00.00= Ramp SA Sta. 13+41.98  
Offset 130.20' Lt.  
SDMH G-1  
See DOT Std. Det H-04  
Top=80.51  
Inv.=75.25 (D24)
- 24 Drain Line G Sta. 0+24.50= Ramp SA Sta. 13+32.77  
Offset: 131.71' Lt.  
Riser G-1, See Det. 2/R-9  
Top=78.00  
Inv.=75.31 (D24&D12)
- 20 Drain Line F Sta. 0+76.89= Ramp SB Sta. 4+16.67  
Offset: 128.57' Lt.  
Type "IA-9P" DI F-1,  
See Det. 1/S-13  
Top=81.71  
Inv.=75.60 (D24)
- 21 Drain Line I Sta. 2+84.45= Drain Line J Sta. 0+00.00= Ramp SB Sta. 4+46.69  
Offset: 22.07' Lt.  
Type Modified I-2 Manhole, See Det. 2/S-12  
Top=96.24  
Inv.=75.47 (D48)  
Inv.=89.53 (D24)
- 22 Drain Line J Sta. 0+26.07 Ramp SB Sta. 4+46.69  
Offset 4.00' Rt.  
Type "61614P" DI J-1,  
See DOT Std. Plans H-12  
Add Drain Inlet Filter, See Det. 1/S-11 Section "A-A"  
Top=95.28  
Inv.=89.79 (D24)
- 25 Drain Line N Sta. 0+06.50= Ramp SA Sta. 13+40.89  
Offset: 120.20' Lt.  
4' Hydrodynamic Separator N, See Det. R-8  
Top=80.44  
Inv.=75.20 (D12)  
Inv.=74.20 (D12)
- 26 Drain Line N Sta. 0+00.00 Ramp SA Sta. 13+46.34  
Offset 119.39' Lt.  
Conn. to 10'x4' RCB, See Det. 4/R-8  
Top=80.71  
Inv.=75.17 (D12)  
Inv.=74.95 (10'x4' RCB)

Match Line  
See sheet D-3

Note:  
1. For 6" Underdrains along Harbor Access Road, see D-5 - DRAINAGE PLAN 4.

# DRAINAGE PLAN 1

Scale: 1" = 40'



CHRISTOPHER H. BALL  
LICENSED PROFESSIONAL ENGINEER  
No. 12144-C  
HAWAII, USA

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4/30/2024  
MITSUNAGA & ASSOCIATES, INC. EXP. DATE

NOTE: Contractor to check and verify dimensions at job before proceeding with work.

DATE	REVISION
11/17/2022	Added Maintenance Access Road
10/21/2022	Revised DL F, swapped 21 & 22 Revised DL K, added DL N, revised Drain Line callouts

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**DRAINAGE PLAN 1**

INTERSTATE ROUTE H-1  
ADDITION AND MODIFICATION OF FREEWAY ACCESS  
(Kapolei Interchange Complex), Phase 3  
Federal Aid Project No. NH-HI-K(271)

Scale: As Noted Date: August 2022

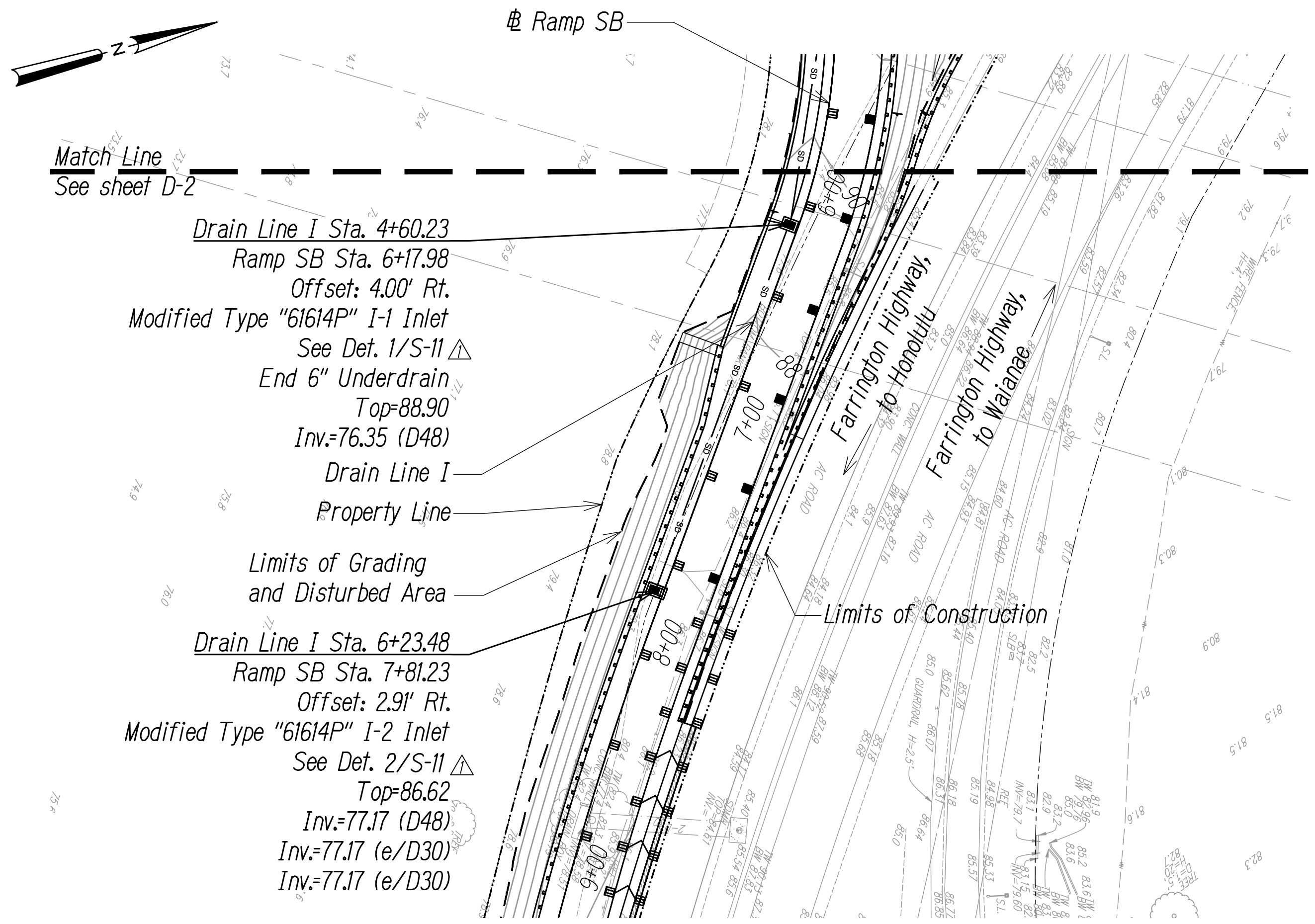
SHEET No. **D-2** OF **167** SHEETS



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-HI-K(271)	2022	ADD. 83	167

Legend

- Limits of Construction
- Limits of Grading and Disturbed Area
- Guardrail
- Property Line
- 80 ----- Finish Grade Contour
- 80 ----- Exist. Grade Contour



Match Line  
See sheet D-2

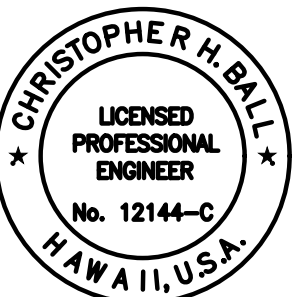
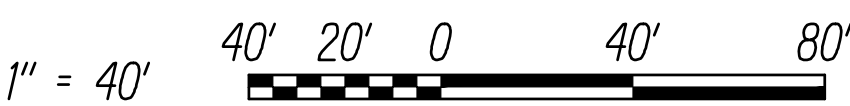
Drain Line I Sta. 4+60.23  
Ramp SB Sta. 6+17.98  
Offset: 4.00' Rt.  
Modified Type "61614P" I-1 Inlet  
See Det. 1/S-11 △  
End 6" Underdrain  
Top=88.90  
Inv.=76.35 (D48)  
Drain Line I  
Property Line  
Limits of Grading and Disturbed Area

Drain Line I Sta. 6+23.48  
Ramp SB Sta. 7+81.23  
Offset: 2.91' Rt.  
Modified Type "61614P" I-2 Inlet  
See Det. 2/S-11 △  
Top=86.62  
Inv.=77.17 (D48)  
Inv.=77.17 (e/D30)  
Inv.=77.17 (e/D30)

DRAINAGE PLAN 2  
Scale: 1" = 40'

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DESIGNED BY	
NOTE BOOK	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	

Graphic Scale



This work was prepared by me or under my supervision

*Chris Ball*  
MITSUNAGA & ASSOCIATES, INC. 4/30/2024  
NOTE: Contractor to check and verify dimensions at job before proceeding with work.

△ 11/17/2022 Revised detail reference sheet

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

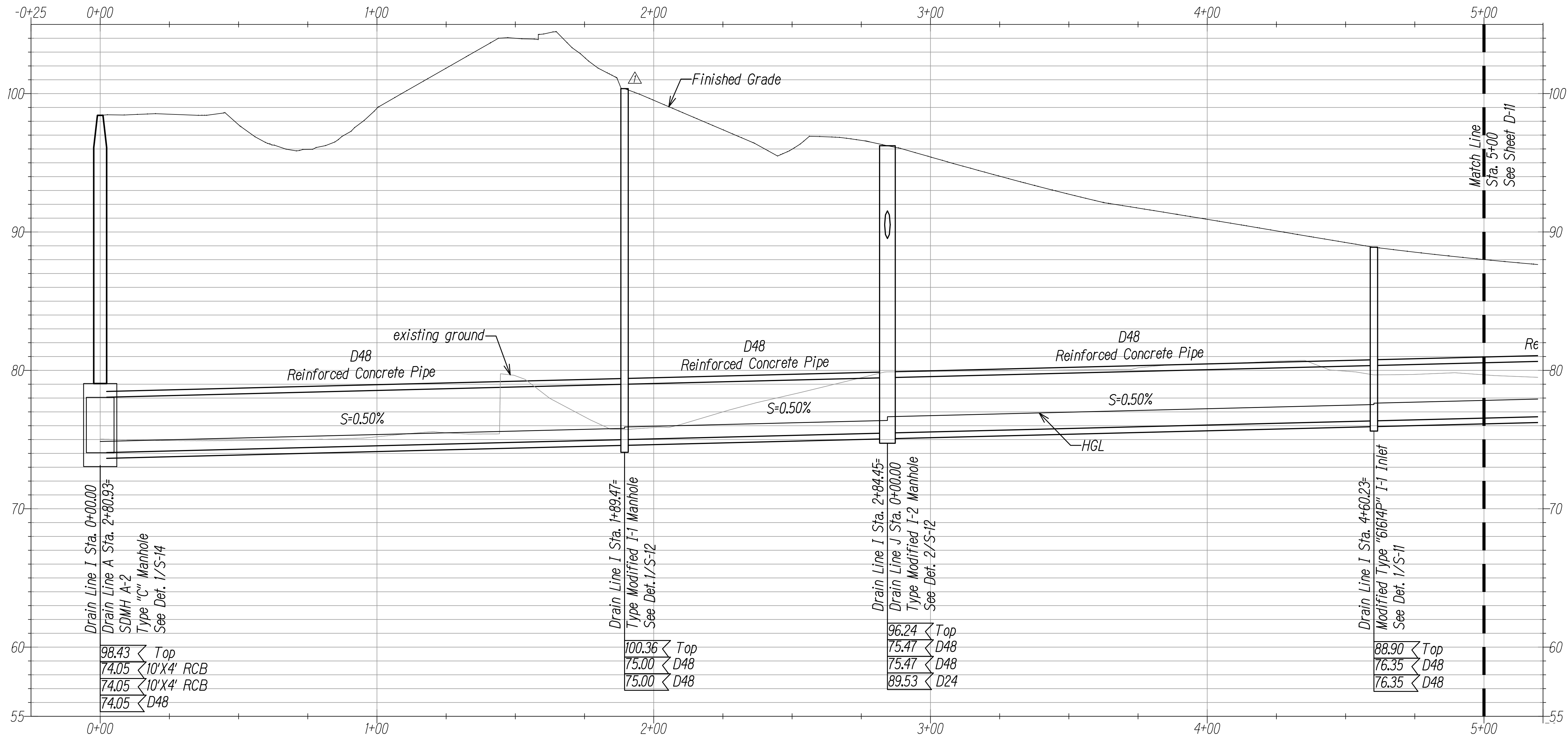
**DRAINAGE PLAN 2**

INTERSTATE ROUTE H-1  
ADDITION AND MODIFICATION OF FREEWAY ACCESS  
(Kapolei Interchange Complex), Phase 3  
Federal Aid Project No. NH-HI-K(271)

Scale: As Noted Date: August 2022



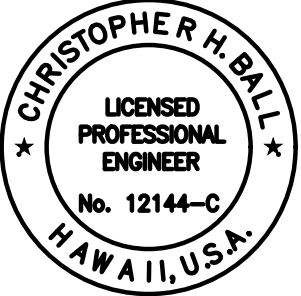
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-K(271)	2022	ADD. 90	167



**DRAIN LINE I PROFILE**

Scale: Horiz: 1" = 20'  
Vert: 1" = 4'

Graphic Scale



This work was prepared by me or under my supervision  
**Chris Ball**  
MITSUNAGA & ASSOCIATES, INC. 4/30/2024  
EXP. DATE

DATE	11/17/2022	REVISION	Revised FG due to Maintenance Access Road
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION			
<b>DRAINAGE PROFILES 5</b>			
INTERSTATE ROUTE H-1 ADDITION AND MODIFICATION OF FREEWAY ACCESS (Kapolei Interchange Complex), Phase 3 Federal Aid Project No. NH-H1-K(271)			
Scale: As Noted		Date: August 2022	

SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
QUANTITIES BY	
CHECKED BY	

ORIGINAL PLAN	No.
NOTE BOOK	



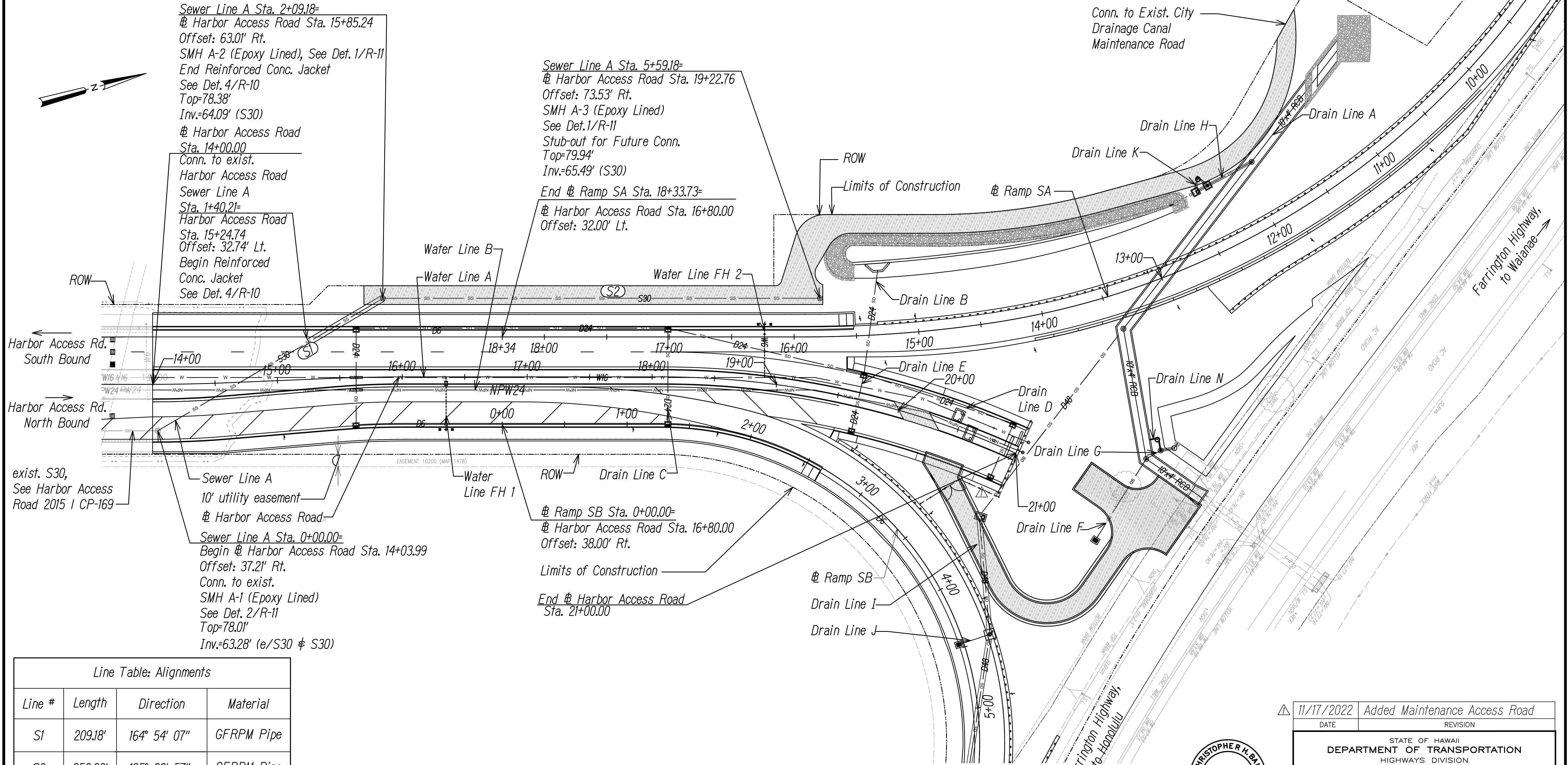
Notes:

- Dry sewers shall remain privately owned and maintained by Aina Nui or their successor until dedication to the City. The city will accept dedication, subject to the following conditions.
1. This portion of the 30-inch Makaiwa Hills sewer line and all segments of the 30-inch Makaiwa Hills interceptor sewer (under separate plans) will be completed and accepted through the construction review process.
  2. Sewers are reinspected by CCTV and reapproved within 2 years before the sewers are activated and operational.
  3. Any deficiencies or damages to the sewer lines shall be corrected by Aina Nui or their successor at no cost to the City.
  4. Completion of other dedication requirements.

Legend

- Limits of Construction  
----- Guardrail  
----- Property Line

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-HI-K(271)	2022	ADD. 93	167



Line Table: Alignments

Line #	Length	Direction	Material
S1	209.18'	164° 54' 07"	GFRPM Pipe
S2	350.00'	195° 22' 57"	GFRPM Pipe

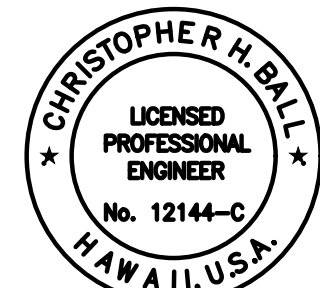
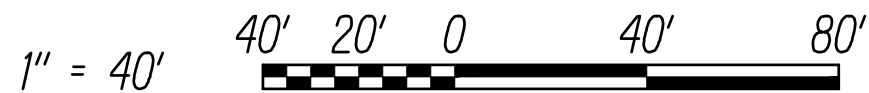
SEWER PLAN  
Scale: 1" = 40'

Approved:

Chief, Wastewater Branch, DPP

Date

Graphic Scale

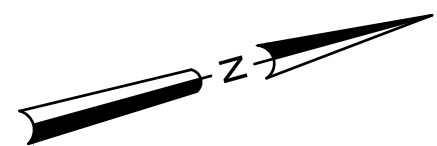


This work was prepared by me or under my supervision

Chris Ball  
MITSUNAGA & ASSOCIATES, INC.  
4/30/2024  
EXP. DATE

11/17/2022	Added Maintenance Access Road
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<b>SEWER PLAN</b>	
INTERSTATE ROUTE H-1 ADDITION AND MODIFICATION OF FREEWAY ACCESS (Kapolei Interchange Complex), Phase 3 Federal Aid Project No. NH-HI-K(271)	
Scale: As Noted	Date: August 2022
SHEET NO. <b>U-1</b> OF <b>167</b> SHEETS	





Water Line A Sta. 0+00.00=  
# Harbor Access Road Sta. 14+00.00  
Offset: 5.50' Lt.  
Conn. to Exist. W16, Remove Cap, C.O. & Conc. Block  
Install 8± LF 16" DI CL 53 Pipe  
1-16" Sleeves, 15" Long  
Temp. for Testing:  
1-16" Cap w/4" C.O.  
1-Conc. Block

# Ramp SA Sta. 18+33.73=  
# Harbor Access Road Sta. 16+80.00  
Offset: 32.00' Lt.

# Harbor Access Road  
Sewer Line A  
10 LF Reinf. Conc.  
Jacket, See Water  
Profiles Sht. U-5  
4 LF Reinf. Conc.  
Jacket, See Water  
Profiles Sht. U-6

Water Line A Sta. 5+30.00=  
# Harbor Access Road Sta. 19+28.92  
Offset: 10.31' Lt.  
1-16" 1/32 Bend, H  
1-Conc. Block  
# Water Line A Sta. 4+95.00=  
# Harbor Access Road Sta. 18+89.66  
Offset: 47.37' Lt.  
1-Test Station, See Det Shts. R-13 & R-14  
End Water Line FH 2 Sta. 0+42.67=  
# Harbor Access Road Sta. 18+85.01  
Offset: 42.67' Lt.

1-FH, FH Assembly & Extension Piece  
1-Conc. Block  
Water Line FH 2 Sta. 0+34.67=  
# Harbor Access Road Sta. 18+85.86  
Offset: 34.67' Lt.  
1-6" GV, CL 150 & Valve Box  
Water Line A Drain Line C Line FH 2

End Water Line A Sta. 7+10.00=  
# Harbor Access Road Sta. 21+05.00  
Offset: 12.18' Lt.  
End W16, DR 14  
1-16" DI Cap w/4" C.O.  
1-Conc. Block  
1-Valve Box  
See BWS Std. Det. V22

Water Line A Sta. 7+02.00=  
# Harbor Access Road Sta. 20+97.78  
Offset: 11.90' Lt.  
1-Conc. Thrust Beam  
w/ Reverse Bell Pipe  
See BWS Std. Det. B16 & B17

Legend

- Limits of Construction
- Guardrail
- Property Line

Limits of Construction

Drain Line H

ROW

Drain Line K

# Ramp SA

Drain Line B

Drain Line E

Drain Line N

Drain Line G

Drain Line D

Drain Line F

Water Line B

Drain Line I

Drain Line J

Limits of Construction

10' utility easement

ROW

# Ramp SB

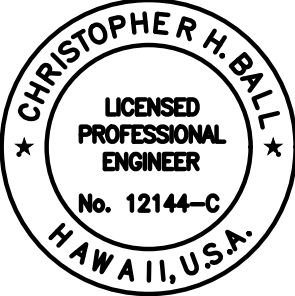
Farrington Highway,  
to Honolulu

Farrington Highway,  
to Waiānae

Graphic Scale

1" = 40' 40' 20' 0 40' 80'

11/17/2022	Added Maintenance Access Road
DATE	REVISION



This work was prepared by me or under my supervision  
MITSUNAGA & ASSOCIATES, INC. 4/30/2024 EXP. DATE

Chris Ball

Approved:

Manager and Chief Engineer, BWS  
(For Work Affecting BWS Facilities  
in City/State R/W and BWS Easement Only)

Date

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**WATER PLAN**

INTERSTATE ROUTE H-1  
ADDITION AND MODIFICATION OF FREEWAY ACCESS  
(Kapolei Interchange Complex), Phase 3  
Federal Aid Project No. NH-HI-K(271)

Scale: As Noted Date: August 2022

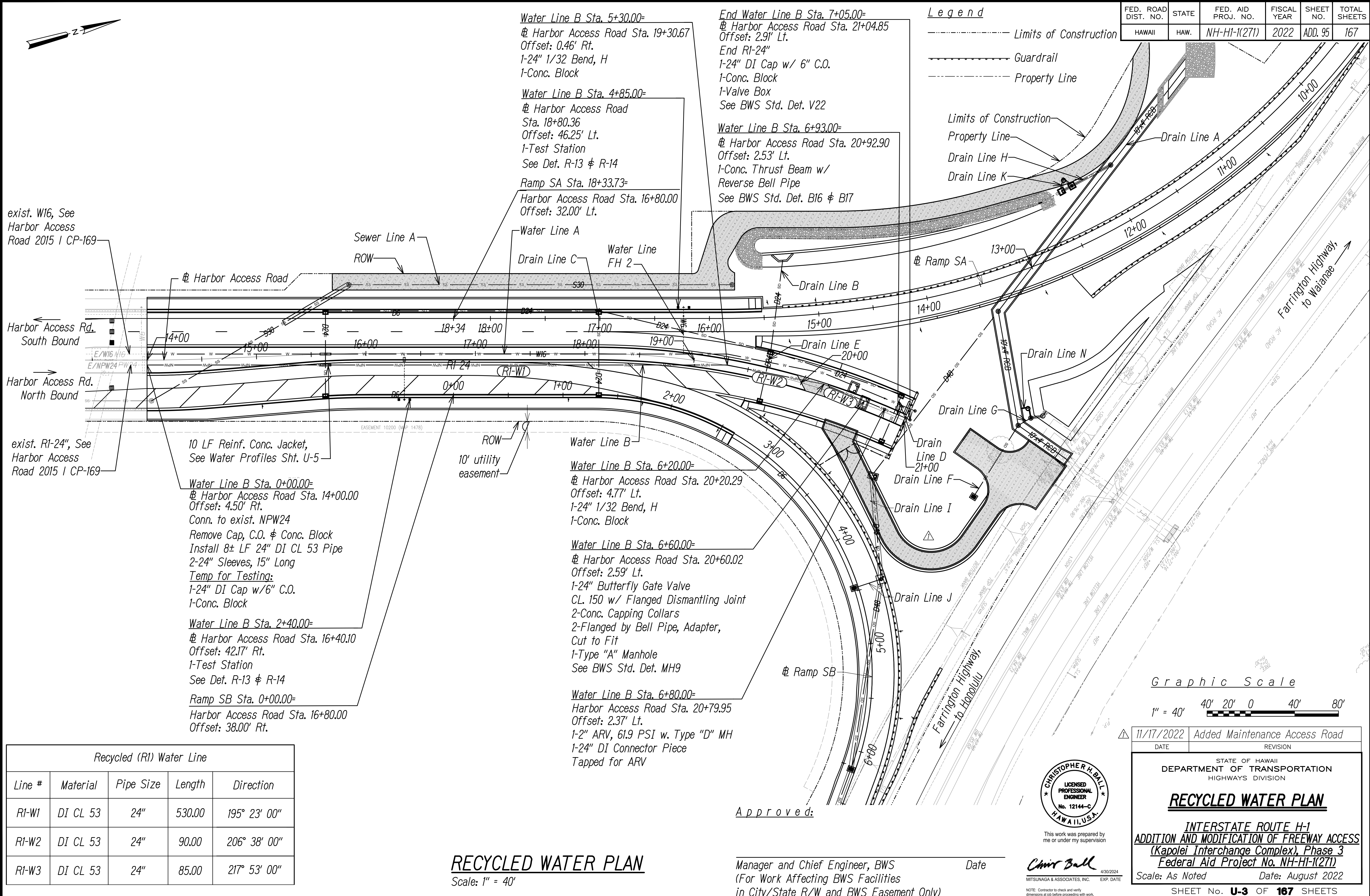
SHEET NO. **U-2** OF **167** SHEETS

SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	

Water Line				
Line #	Material	Pipe Size	Length	Direction
W1	DI CL 53	16"	530.00	195° 23' 00"
W2	DI CL 53	16"	90.00	206° 38' 00"
W3	DI CL 53	16"	90.00	217° 53' 00"

**WATER PLAN**  
Scale: 1" = 40'





FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-HI-K(271)	2022	ADD. 95	167

- Legend**
- Limits of Construction
  - Guardrail
  - Property Line

exist. W16, See Harbor Access Road 2015 I CP-169

Harbor Access Rd. South Bound  
Harbor Access Rd. North Bound

exist. RI-24", See Harbor Access Road 2015 I CP-169

10 LF Reinf. Conc. Jacket, See Water Profiles Sht. U-5

**Water Line B Sta. 0+00.00=**  
# Harbor Access Road Sta. 14+00.00  
Offset: 4.50' Rt.  
Conn. to exist. NPW24  
Remove Cap, C.O. & Conc. Block  
Install 8± LF 24" DI CL 53 Pipe  
2-24" Sleeves, 15" Long  
Temp for Testing:  
1-24" DI Cap w/6" C.O.  
1-Conc. Block

**Water Line B Sta. 2+40.00=**  
# Harbor Access Road Sta. 16+40.10  
Offset: 42.17' Rt.  
1-Test Station  
See Det. R-13 & R-14  
**Ramp SB Sta. 0+00.00=**  
Harbor Access Road Sta. 16+80.00  
Offset: 38.00' Rt.

**Water Line B Sta. 5+30.00=**  
# Harbor Access Road Sta. 19+30.67  
Offset: 0.46' Rt.  
1-24" 1/32 Bend, H  
1-Conc. Block

**Water Line B Sta. 4+85.00=**  
# Harbor Access Road Sta. 18+80.36  
Offset: 46.25' Lt.  
1-Test Station  
See Det. R-13 & R-14  
**Ramp SA Sta. 18+33.73=**  
Harbor Access Road Sta. 16+80.00  
Offset: 32.00' Lt.

**End Water Line B Sta. 7+05.00=**  
# Harbor Access Road Sta. 21+04.85  
Offset: 2.91' Lt.  
End RI-24"  
1-24" DI Cap w/ 6" C.O.  
1-Conc. Block  
1-Valve Box  
See BWS Std. Det. V22

**Water Line B Sta. 6+93.00=**  
# Harbor Access Road Sta. 20+92.90  
Offset: 2.53' Lt.  
1-Conc. Thrust Beam w/ Reverse Bell Pipe  
See BWS Std. Det. BI6 & BI7

**Water Line B Sta. 6+20.00=**  
# Harbor Access Road Sta. 20+20.29  
Offset: 4.77' Lt.  
1-24" 1/32 Bend, H  
1-Conc. Block

**Water Line B Sta. 6+60.00=**  
# Harbor Access Road Sta. 20+60.02  
Offset: 2.59' Lt.  
1-24" Butterfly Gate Valve  
CL 150 w/ Flanged Dismantling Joint  
2-Conc. Capping Collars  
2-Flanged by Bell Pipe, Adapter, Cut to Fit  
1-Type "A" Manhole  
See BWS Std. Det. MH9

**Water Line B Sta. 6+80.00=**  
Harbor Access Road Sta. 20+79.95  
Offset: 2.37' Lt.  
1-2" ARV, 61.9 PSI w. Type "D" MH  
1-24" DI Connector Piece  
Tapped for ARV

Recycled (RI) Water Line				
Line #	Material	Pipe Size	Length	Direction
RI-W1	DI CL 53	24"	530.00	195° 23' 00"
RI-W2	DI CL 53	24"	90.00	206° 38' 00"
RI-W3	DI CL 53	24"	85.00	217° 53' 00"

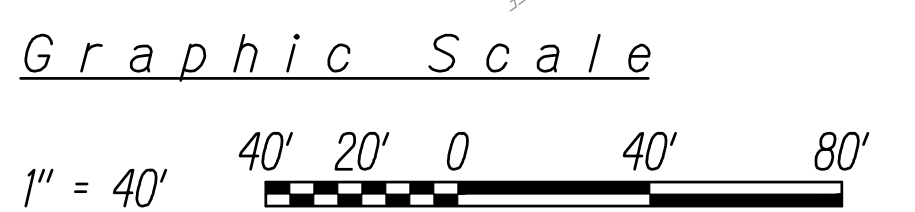
**RECYCLED WATER PLAN**  
Scale: 1" = 40'

Approved:

Manager and Chief Engineer, BWS  
(For Work Affecting BWS Facilities  
in City/State R/W and BWS Easement Only)

Date

**CHRISTOPHER H. BALL**  
LICENSED PROFESSIONAL ENGINEER  
No. 12144-C  
HAWAII, USA  
This work was prepared by me or under my supervision  
MITSUNAGA & ASSOCIATES, INC. 4/30/2024 EXP. DATE



11/17/2022 Added Maintenance Access Road  
DATE REVISION  
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**RECYCLED WATER PLAN**  
INTERSTATE ROUTE H-1  
ADDITION AND MODIFICATION OF FREEWAY ACCESS  
(Kapolei Interchange Complex), Phase 3  
Federal Aid Project No. NH-HI-K(271)  
Scale: As Noted Date: August 2022  
SHEET NO. **U-3** OF **167** SHEETS

SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
NOTED BY	
CHECKED BY	



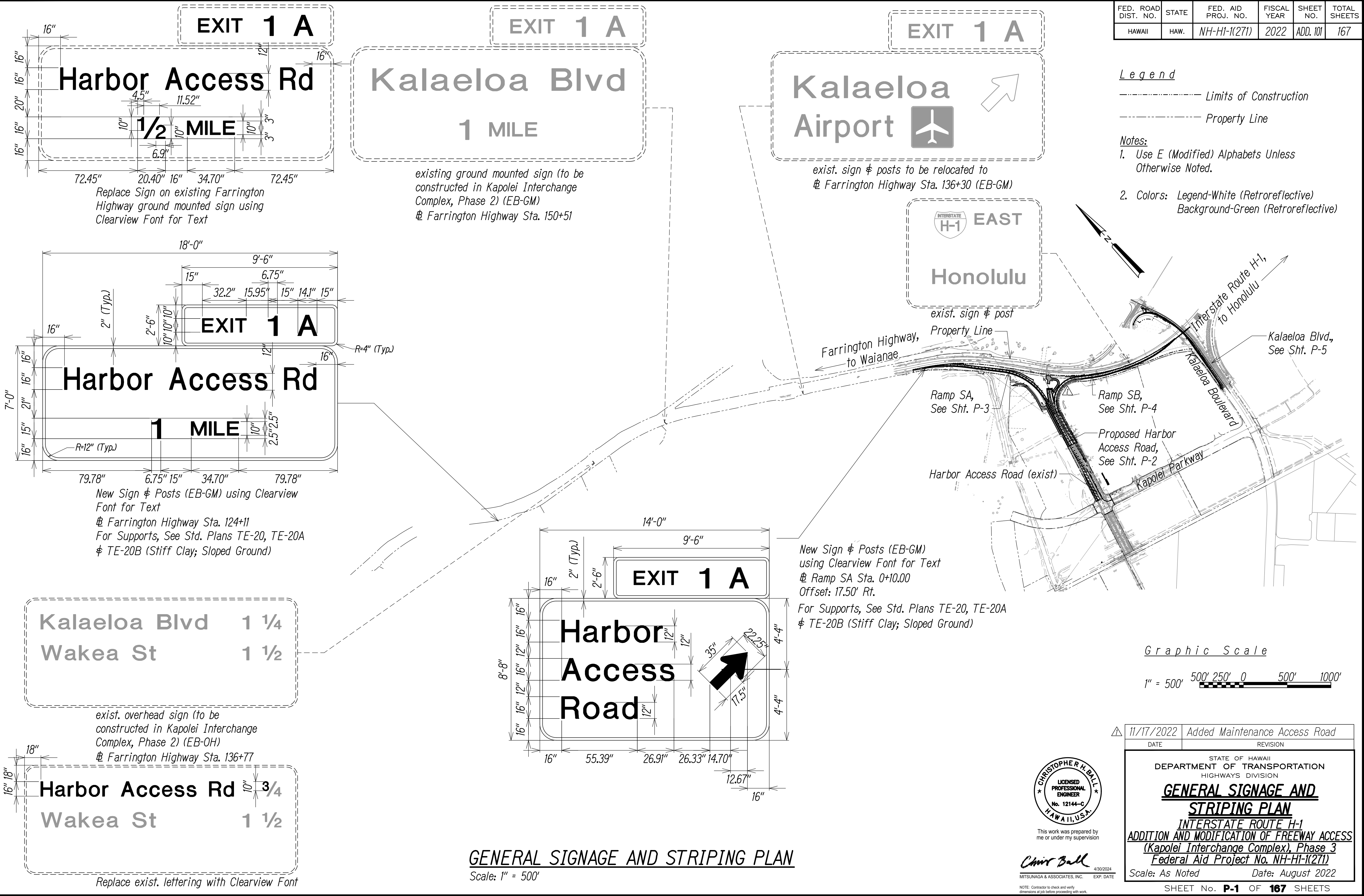
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-HI-1(271)	2022	ADD. 101	167

Legend

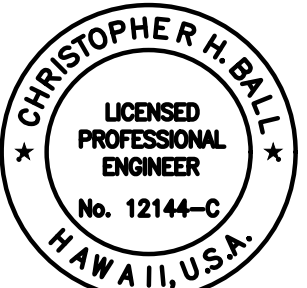
- Limits of Construction  
----- Property Line

Notes:

1. Use E (Modified) Alphabets Unless Otherwise Noted.
2. Colors: Legend-White (Retroreflective)  
Background-Green (Retroreflective)



SURVEY PLOTTED BY	DATE
DESIGNED BY	
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	



This work was prepared by me or under my supervision  
MITSUNAGA & ASSOCIATES, INC. 4/30/2024  
NOTE: Contractor to check and verify dimensions at job before proceeding with work.

11/17/2022	Added Maintenance Access Road
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION <b>GENERAL SIGNAGE AND STRIPING PLAN</b> INTERSTATE ROUTE H-1 ADDITION AND MODIFICATION OF FREEWAY ACCESS (Kapolei Interchange Complex), Phase 3 Federal Aid Project No. NH-HI-1(271) Scale: As Noted Date: August 2022	

SHEET No. P-1 OF 167 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-HI-1(271)	2022	102	167

⑦ # Harbor Access Road Sta. 6+99.43  
Offset: 38.00' Lt.  
Begin Transverse Right Shoulder Marking  
See HDOT Standard Plans TE-27

② # Harbor Access Road Sta. 7+01.31  
Offset: 43.00' Lt.  
Begin Transverse Right Shoulder Marking  
See HDOT Standard Plans TE-27

③ # Harbor Access Road Sta. 10+43.39  
Offset: 44.00' Lt.  
End Transverse Right Shoulder Marking

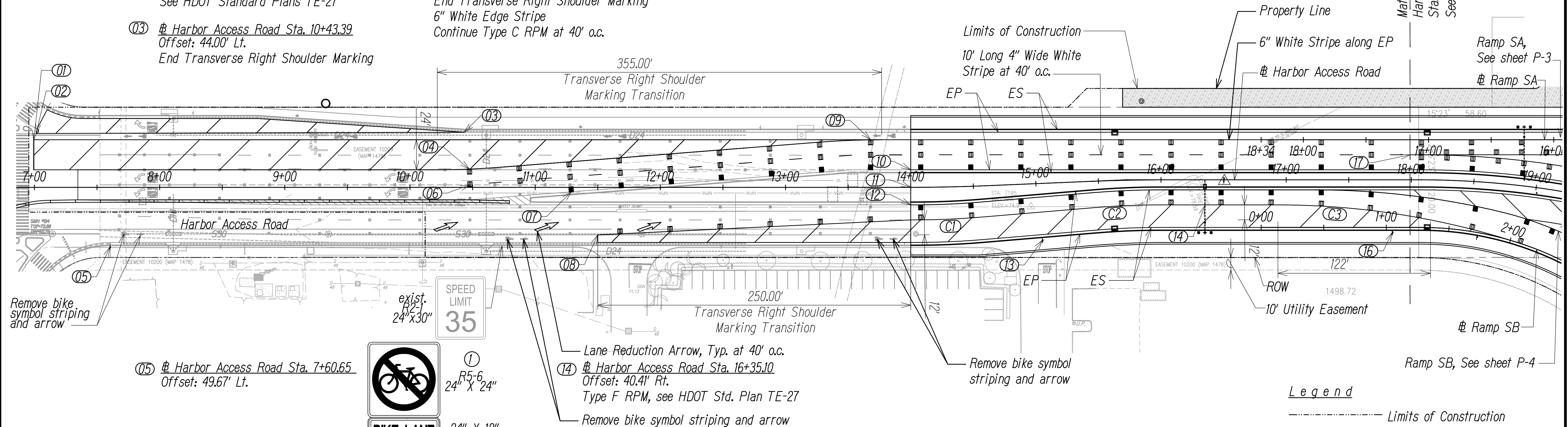
①④ # Harbor Access Road Sta. 10+47.37  
Offset: 14.54' Lt.  
Begin Type C RPM, Continue Spacing at  
40' o.c. from Existing Type C RPM

⑨ # Harbor Access Road Sta. 13+67.90  
Offset: 38.00' Lt.  
End Transverse Right Shoulder Marking  
6" White Edge Stripe  
Continue Type C RPM at 40' o.c.

(10) # Harbor Access Road Sta. 14+58.59  
Offset: 14.00' Lt.  
Begin 6" Yellow Edge Stripe Conn.  
to exist. Yellow Edge Stripe  
Continue Type H RPM at 40' o.c.


⑪ # Harbor Access Road Sta. 14+00.00

(17) # Harbor Access Road Sta. 17+98.93  
Offset: 20.00' Lt.  
End White Profiled Thermoplastic Striping w/Type C RPM  
Begin 8" White Stripe w/Type  
C RPM at 20' o.c. along EP.



(05) # Harbor Access Road Sta. 7+60.65  
Offset: 49.67' Lt.

(06) # Harbor Access Road Sta. 10+13.22  
Offset: 89.21' Rt.  
Begin White Profiled Thermoplastic Striping  
w/ Type C RPM, Continue Spacing at  
40' o.c. from Existing Type C RPM, See Sht. T-12

  
BIKE LANE  
CLOSED

⑦ # Harbor Access Road Sta. 10+94.24  
Offset: 108.69' Rt.  
Begin Type H RPM, Continue Spacing at  
40' o.c. from Existing Type D RPM

⑩ # Harbor Access Road Sta. 11+15.37  
Offset: 143.12' Rt.  
Begin Transverse Right Shoulder Marking  
See HDOT Standard Plans TE-27

(12) # Harbor Access Road Sta. 13+65.38  
Offset: 119.12' Rt.  
6" Yellow Edge Stripe w/Type H RPM at 40' o.c.  
Conn. to exist. 4" yellow stripe

⑬ # Harbor Access Road Sta. 14+65.73  
Offset: 117.17' Rt.


(16) # Harbor Access Road Sta. 17+84.76  
Offset: 61.91' Rt.

Curve Data						
Curve #	$\Delta$	$\Delta/2$	$R$	$C$	$L_c$	$T$
C1	5° 10' 48"	2° 35' 24"	640.68'	57.92'	57.90'	28.98'
C2	4° 46' 37"	2° 23' 18"	638.11'	53.20'	53.19'	26.62'
C3	17° 56' 43"	8° 58' 21"	625.00'	195.75'	194.95'	98.68'

HARBOR ACCESS ROAD PLAN STA. 6+99 - 17+98.93

Scale: 1" = 40'

Graphic Scale




A circular professional engineer seal for Christopher H. Bae. The outer ring contains the name "CHRISTOPHER H. BAE" at the top and "HAWAII, U.S.A." at the bottom, separated by a small star on the left. The center of the seal contains the text "LICENSED PROFESSIONAL ENGINEER" and the license number "No. 12144-C".

This work was prepared by  
me or under my supervision

Chair Ball 4/30/2024

Legend

 *Limits of Construction*  
 *Property Line*  
 *Guardrail*  
 *Temporary Plastic Barrier*

- ① Install New Sign(s) w/ Post(s)
- ② Install New Sign(s) w/ 2 Posts

*Note:*

1. All ground mounted signs to use square tube posts, see HDOT Standard Plans TE-01, TE-02A, TE-03A, TE-03B (Stiff Clay), w/ Reflector Marker RM-3 on posts, see TE-14.

	11/17/2022	Removed Road Closed Sign
	DATE	REVISION

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

**SIGNAGE AND STRIPING PLAN 1**

**INTERSTATE ROUTE H-1**  
**ADDITION AND MODIFICATION OF FREEWAY ACCESS**  
**(Kapolei Interchange Complex), Phase 3**  
**Federal Aid Project No. NH-HI-1(271)**

Scale: As Noted      Date: August 2022

SHEET No. **P-2** OF **167** SHEETS



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-HI-K(271)	2022	ADD. 103	167

Legend

----- Limits of Construction

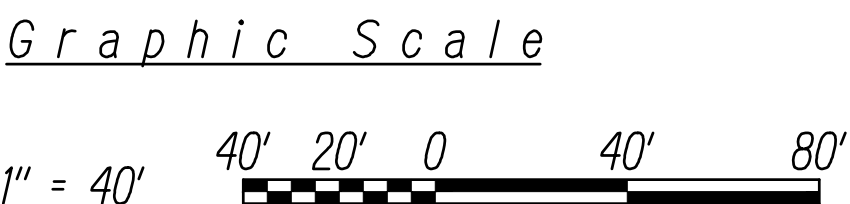
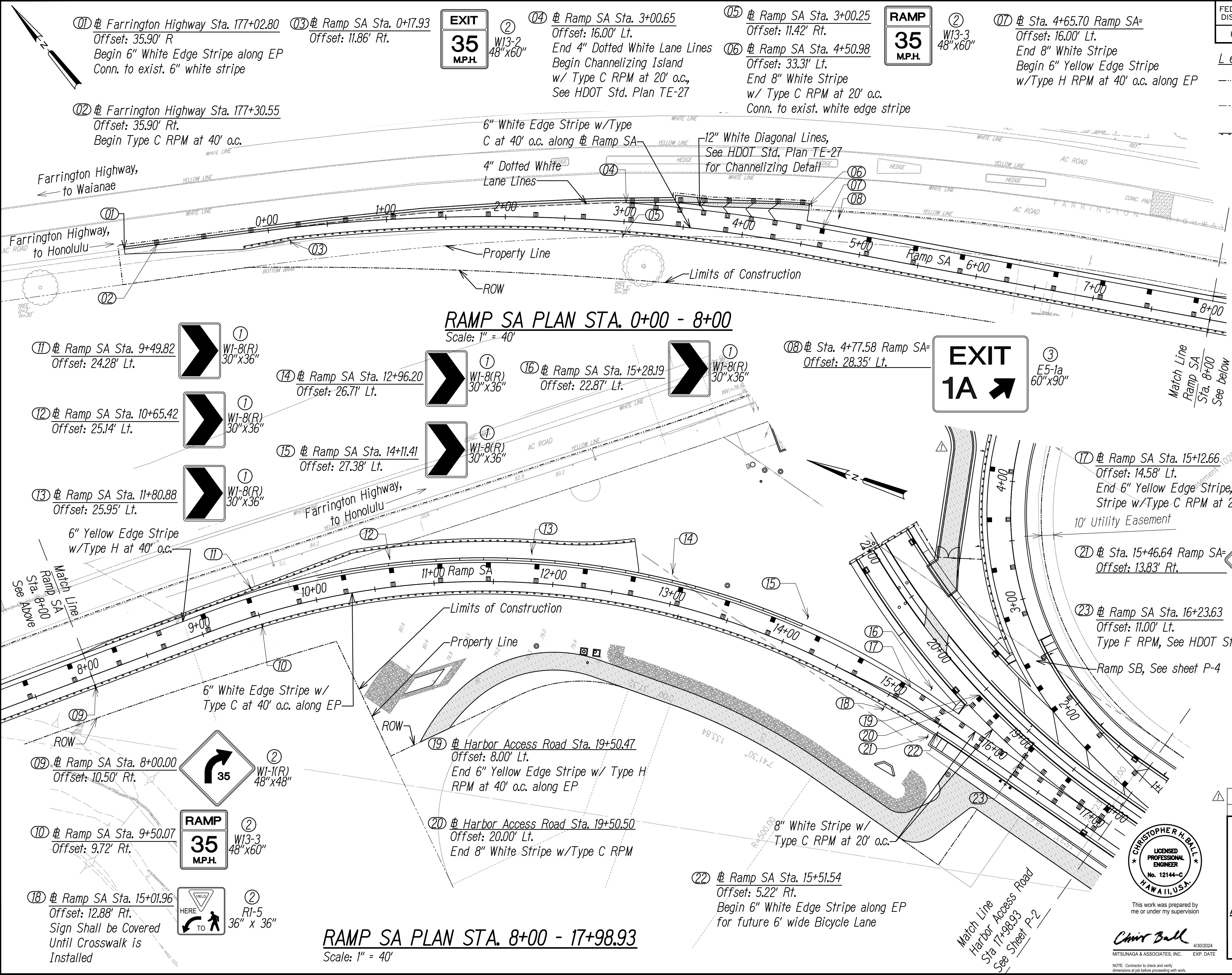
----- Property Line

----- Guardrail

- ① Install New Sign(s) w/ Post(s)
- ② Install New Sign(s) w/ 2 Posts
- ③ Install New Sign(s) w/ 3 Posts

Note:

1. All ground mounted signs to use square tube posts, see HDOT Standard Plans TE-01, TE-02A, TE-03A, TE-03B (Stiff Clay), w/ Reflector Marker RM-3 on posts, see TE-14.



DATE	REVISION
11/17/2022	Added Maintenance Access Road

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**SIGNAGE AND STRIPING PLAN 2**

INTERSTATE ROUTE H-1  
ADDITION AND MODIFICATION OF FREEWAY ACCESS  
(Kapolei Interchange Complex), Phase 3  
Federal Aid Project No. NH-HI-K(271)

Scale: As Noted Date: August 2022



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-K(271)	2022	ADD. 104	167

Legend

- Limits of Construction
- Property Line
- Guardrail
- ① Install New Sign(s) w/ Post
- ② Install New Sign(s) w/ 2 Posts

Note:

1. All ground mounted signs to use square tube posts, see HDOT Standard Plans TE-01, TE-02A, TE-03A, TE-03B (Stiff Clay), w/ Reflector Marker RM-3 on posts, see TE-14.



Queen Liliuokalani Freeway

existing ground mounted sign to remain

Relocate Exist. Sign to Ramp SB Sta. 17+06 Offset: 13.00' Lt.

WRONG WAY

Demolish & Remove Exist. Signs

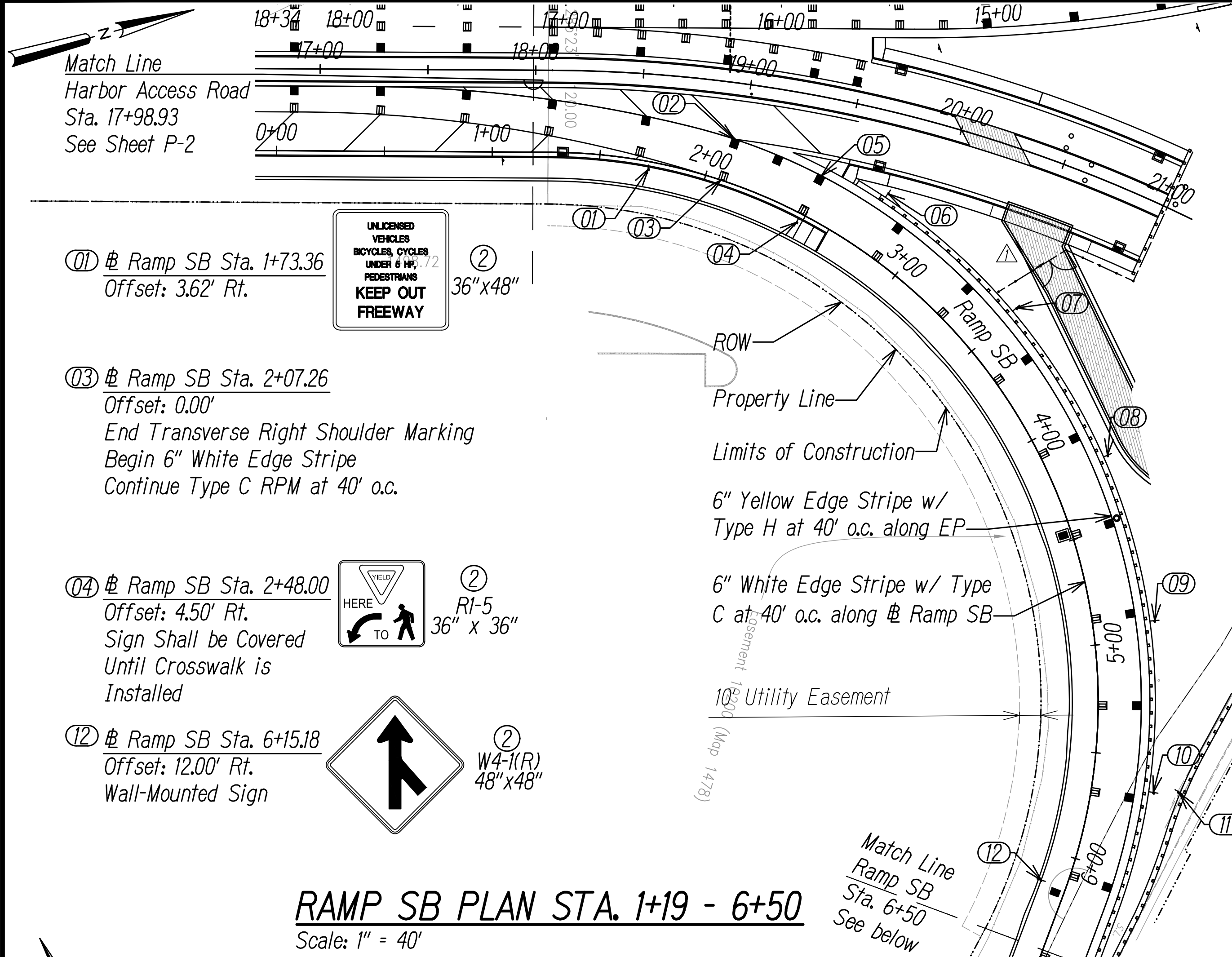
DATE	REVISION
11/17/2022	Added Maintenance Access Road

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**SIGNAGE AND STRIPING PLAN 3**

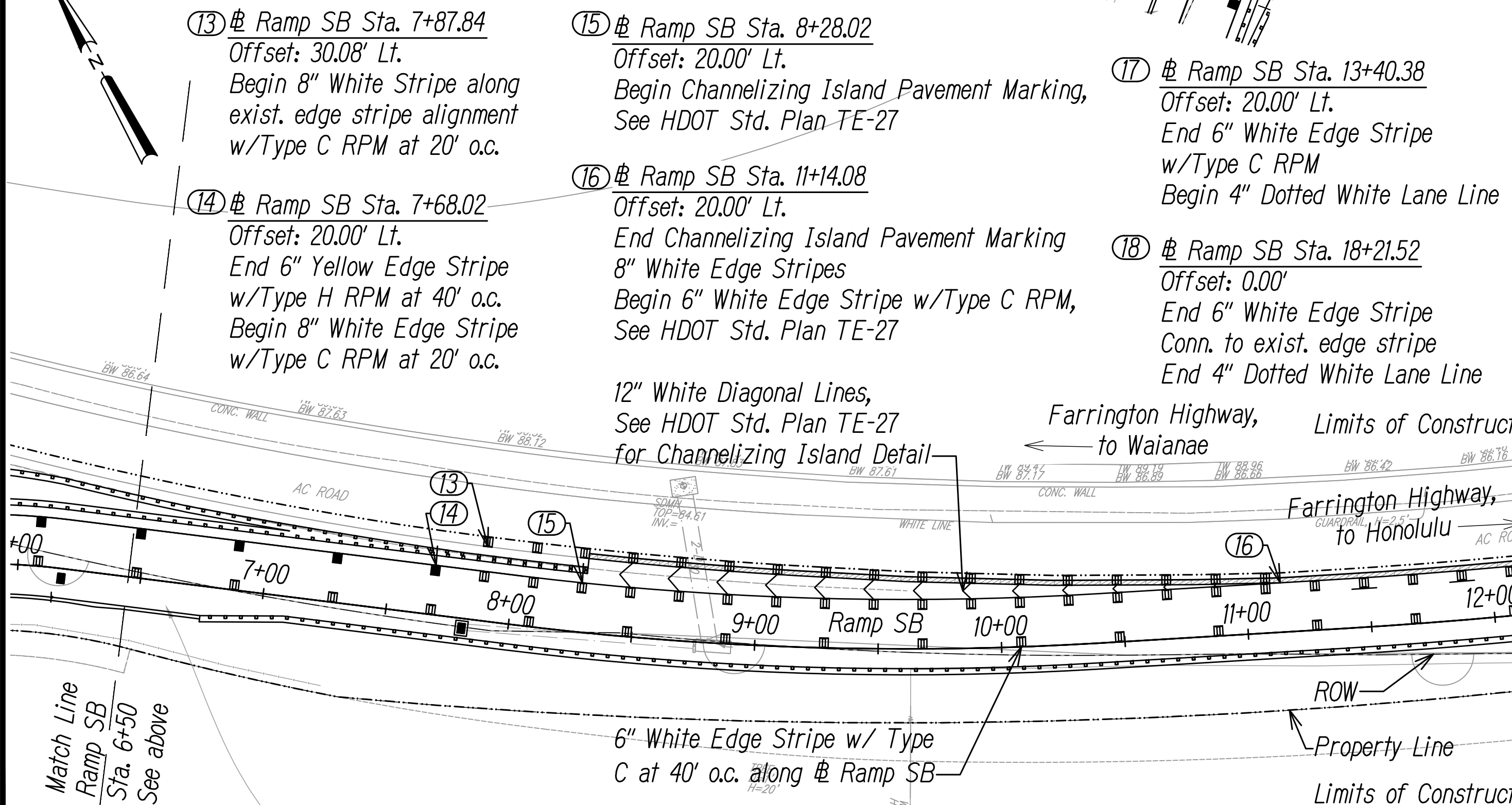
INTERSTATE ROUTE H-1  
ADDITION AND MODIFICATION OF FREEWAY ACCESS  
(Kapolei Interchange Complex), Phase 3  
Federal Aid Project No. NH-H1-K(271)

Scale: As Noted Date: August 2022



**RAMP SB PLAN STA. 1+19 - 6+50**

Scale: 1" = 40'



**RAMP SB PLAN STA. 6+50 - 18+22**

Scale: 1" = 40'

⑤ Ramp SB Sta. 2+48.03  
Offset: 20.00' Lt.  
End 8" White Edge Stripe w/Type C RPM at 20' o.c.  
Begin 6" Yellow Edge Stripe w/Type H RPM at 40' o.c.

⑥ Ramp SB Sta. 2+90.51  
Offset: 30.55' Lt.

⑦ Ramp SB Sta. 3+48.34  
Offset: 28.72' Lt.

⑧ Ramp SB Sta. 4+20.76  
Offset: 28.49' Lt.

⑨ Ramp SB Sta. 4+93.27  
Offset: 28.67' Lt.

⑩ Ramp SB Sta. 5+65.70  
Offset: 28.50' Lt.

⑪ Ramp SB Sta. 5+63.05  
Offset: 40.81' Lt.

⑬ Ramp SB Sta. 7+87.84  
Offset: 30.08' Lt.  
Begin 8" White Stripe along exist. edge stripe alignment w/Type C RPM at 20' o.c.

⑭ Ramp SB Sta. 7+68.02  
Offset: 20.00' Lt.  
End 6" Yellow Edge Stripe w/Type H RPM at 40' o.c.  
Begin 8" White Edge Stripe w/Type C RPM at 20' o.c.

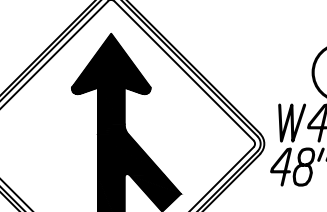
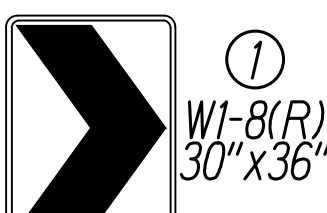
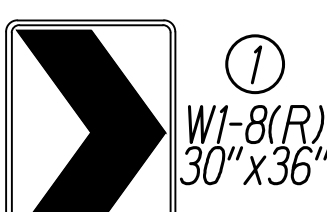
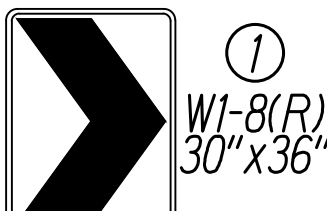
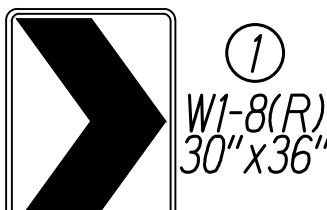
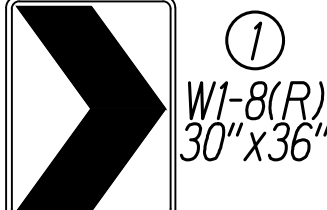
⑮ Ramp SB Sta. 8+28.02  
Offset: 20.00' Lt.  
Begin Channelizing Island Pavement Marking, See HDOT Std. Plan TE-27

⑯ Ramp SB Sta. 11+14.08  
Offset: 20.00' Lt.  
End Channelizing Island Pavement Marking 8" White Edge Stripes  
Begin 6" White Edge Stripe w/Type C RPM, See HDOT Std. Plan TE-27

12" White Diagonal Lines, See HDOT Std. Plan TE-27 for Channelizing Island Detail

⑰ Ramp SB Sta. 13+40.38  
Offset: 20.00' Lt.  
End 6" White Edge Stripe w/Type C RPM  
Begin 4" Dotted White Lane Line

⑱ Ramp SB Sta. 18+21.52  
Offset: 0.00'  
End 6" White Edge Stripe Conn. to exist. edge stripe  
End 4" Dotted White Lane Line



BARBERS PT. HARBOR

EXIT 1 B

EAST  
Honolulu

Wakea St  
1/4 MILE

EXIT 1 A

Harbor Access Road

exist. cantilever overhead sign & footing w/34' wide guide sign to remain

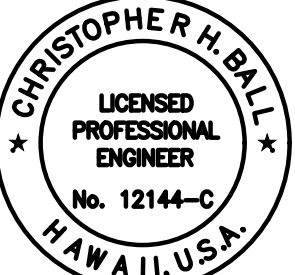
Demolish & Remove Exist. 28' Wide Overhead Guide Sign

EXIT 25 MPH

Demolish & Remove Exist. Sign

EXIT 1A

Demolish & Remove Exist. Sign



This work was prepared by me or under my supervision  
Chris Ball  
MITSUNAGA & ASSOCIATES, INC.  
4/30/2024  
NOTE: Contractor to check and verify dimensions at job before proceeding with work.

SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
QUANTITIES BY	
CHECKED BY	



Work Zone Notes:

1. The Work Zone Signs are Intended for Use on Long-Term Stationary Work Zones/ Construction Phases (3 Days or More). All Work Zones or Construction Phases Less Than 3 Days Duration will Use Traffic Control Plans Shown in Section 645 of the Special Provisions.
2. All Existing Regulatory Speed Limit Signs with Posts within the Work Zone/ Project Limits Shall be Removed and Replaced with Work Zone Speed Limit Sign Assemblies (R2-1(25) and CW3-5(25) with "Construction Area" and "\$250 Fine HRS 291C-104" Supplemental Signs).
3. Construction Sign Assemblies Shall be Installed on Both the Approaching and Trailing Ends of Each Work Zone.
4. Each Construction Warning Sign and Work Zone Speed Limit Assembly Shall have a Minimum of Two (2) Type II OM. Installation of Each Type II OM Shall be Considered Incidental to Item No. 621.7100, Construction Sign with Posts.
5. Upon the Completion of All Physical Work or as Directed by the Engineer, All Construction Signs and Work Zone Speed Limit Assemblies Shall be Removed. All Speed Limit Signs and Posts that were Existing at the Start of the Project Within the Work Zone/Project Limits Shall be Restored Back to their Original Locations and Configurations.
6. Placement of Construction Signs or Cones Shall not Obstruct the Path of Pedestrians and Bicyclists Without Providing an Equally Accessible Route.
7. Mounting Height of Signs Shall Meet MUTCD 6F.03 for Work that is 24 Hours a Day Lasting Longer than 3 Days.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-1(271)	2022	ADD. 106	167

Legend

- Limits of Construction
- Property Line

Construction Sequence for Harbor Access Road, Ramp SA, and Ramp SB

Construction Sequence 1:

- Clear and Grub Area for Ramp SA and Harbor Access Road Construction.
- Construction of Ramp SA and Harbor Access Road.
- Harbor Access Road Access Restricted (Vehicle, Bicycle, and Pedestrian) Mauka of Kapolei Parkway.
- See sht. TC-2 for Sequence 1 Overall Plan.

Construction Sequence 2:

- Connection of Ramp SA to Farrington Highway.
- Harbor Access Road Access Restricted (Vehicle, Bicycle, and Pedestrian) Mauka of Kapolei Parkway.
- See sht. TC-5 for Sequence 2 Overall Plan.

Construction Sequence 3:

- Clear and Grub Area for Ramp SB Construction.
- Harbor Access Road Southbound from Ramp SA to be opened at the same time as Ramp SA.
- Harbor Access Road Southbound Lanes Open, Access Restricted to Bicycles and Pedestrians.
- Harbor Access Road Northbound Access Restricted (Vehicle, Bicycle, and Pedestrian) Mauka of Kapolei Parkway.
- Clear and Grub and Demolition of Off-Ramp 1A to commence after completion and opening of Ramp SA and Southbound Harbor Access Road.
- See sht. TC-7 for Sequence 3 Overall Plan.

Construction Sequence 4:

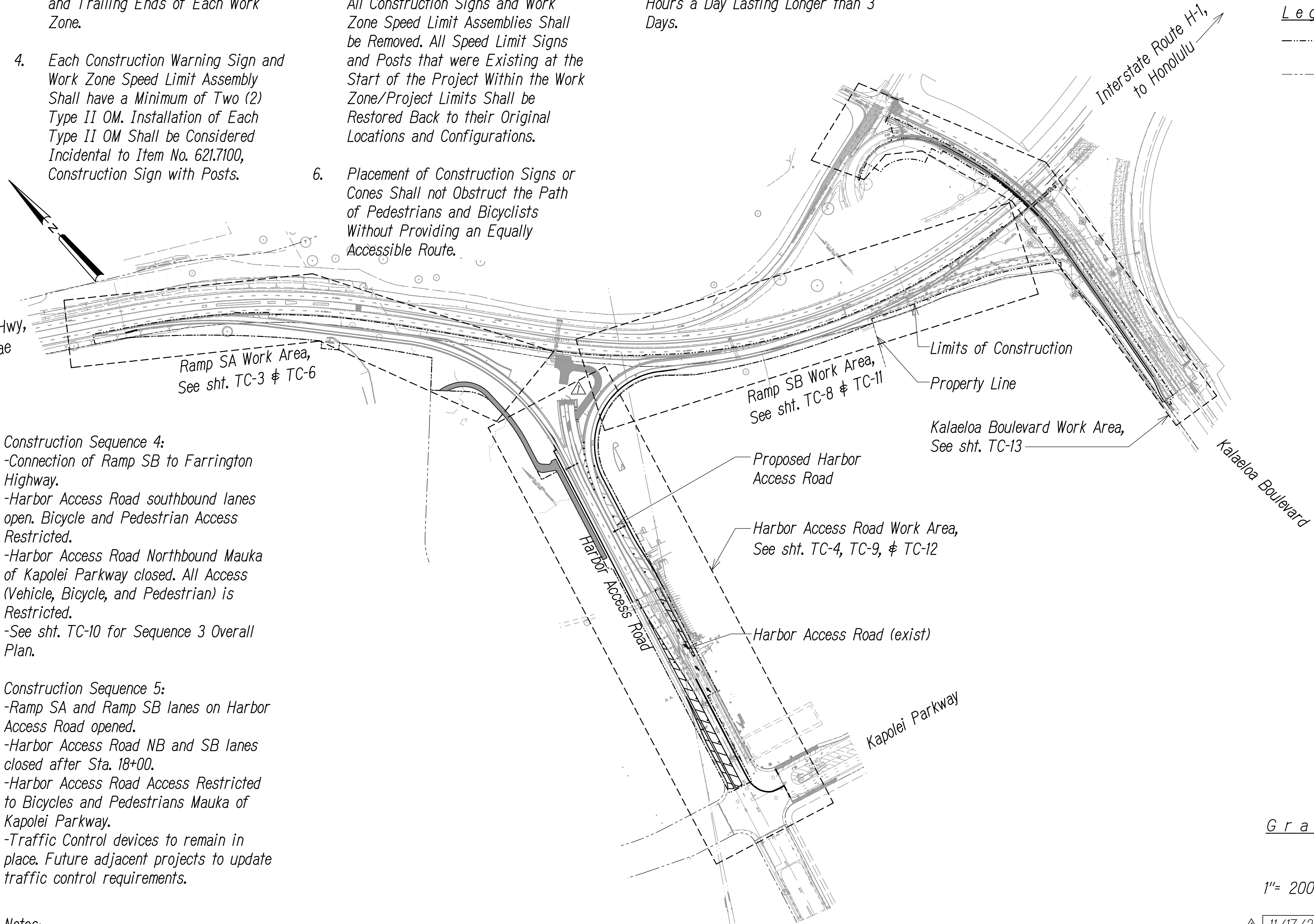
- Connection of Ramp SB to Farrington Highway.
- Harbor Access Road southbound lanes open. Bicycle and Pedestrian Access Restricted.
- Harbor Access Road Northbound Mauka of Kapolei Parkway closed. All Access (Vehicle, Bicycle, and Pedestrian) is Restricted.
- See sht. TC-10 for Sequence 3 Overall Plan.

Construction Sequence 5:

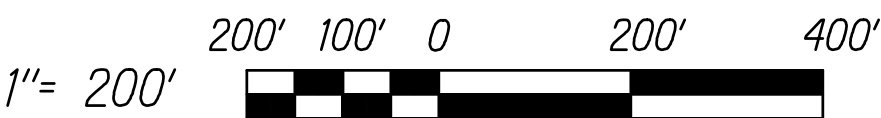
- Ramp SA and Ramp SB lanes on Harbor Access Road opened.
- Harbor Access Road NB and SB lanes closed after Sta. 18+00.
- Harbor Access Road Access Restricted to Bicycles and Pedestrians Mauka of Kapolei Parkway.
- Traffic Control devices to remain in place. Future adjacent projects to update traffic control requirements.

Notes:

1. Contractor to get approval for the completion of Ramp SA and Southbound Harbor Access Road (Sequence 2). Once approval for completion is given and Ramp SA and Southbound Harbor Access Road is opened, clearing and grubbing and demolition of existing Off-Ramp 1A (Sequence 3) may commence.
2. All traffic control devices on traffic control plans shall be incidental to bid item 645.0100 Traffic Control except for MASH TL-3 Temporary Barriers.



Graphic Scale



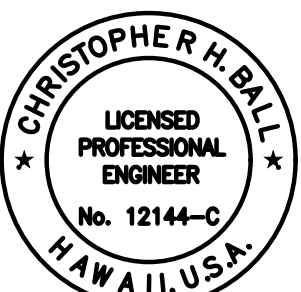
	11/17/2022	Added Maintenance Access Road
	DATE	REVISION

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**OVERALL TRAFFIC**  
**CONTROL PLAN**

*INTERSTATE ROUTE H-1*  
**ADDITION AND MODIFICATION OF FREEWAY ACCESS**  
*(Kapolei Interchange Complex), Phase 3*  
*Federal Aid Project No. NH-H1-1(271)*

Scale: As Noted      Date: August 2022



This work was prepared by me or under my supervision

*Chris Ball*

MITSUNAGA & ASSOCIATES, INC. 4/30/2024 EXP. DATE

NOTE: Contractor to check and verify dimensions at job before proceeding with work.

OVERALL TRAFFIC CONTROL PLAN

Scale: 1" = 200'

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-K(271)	2022	ADD. 115	167

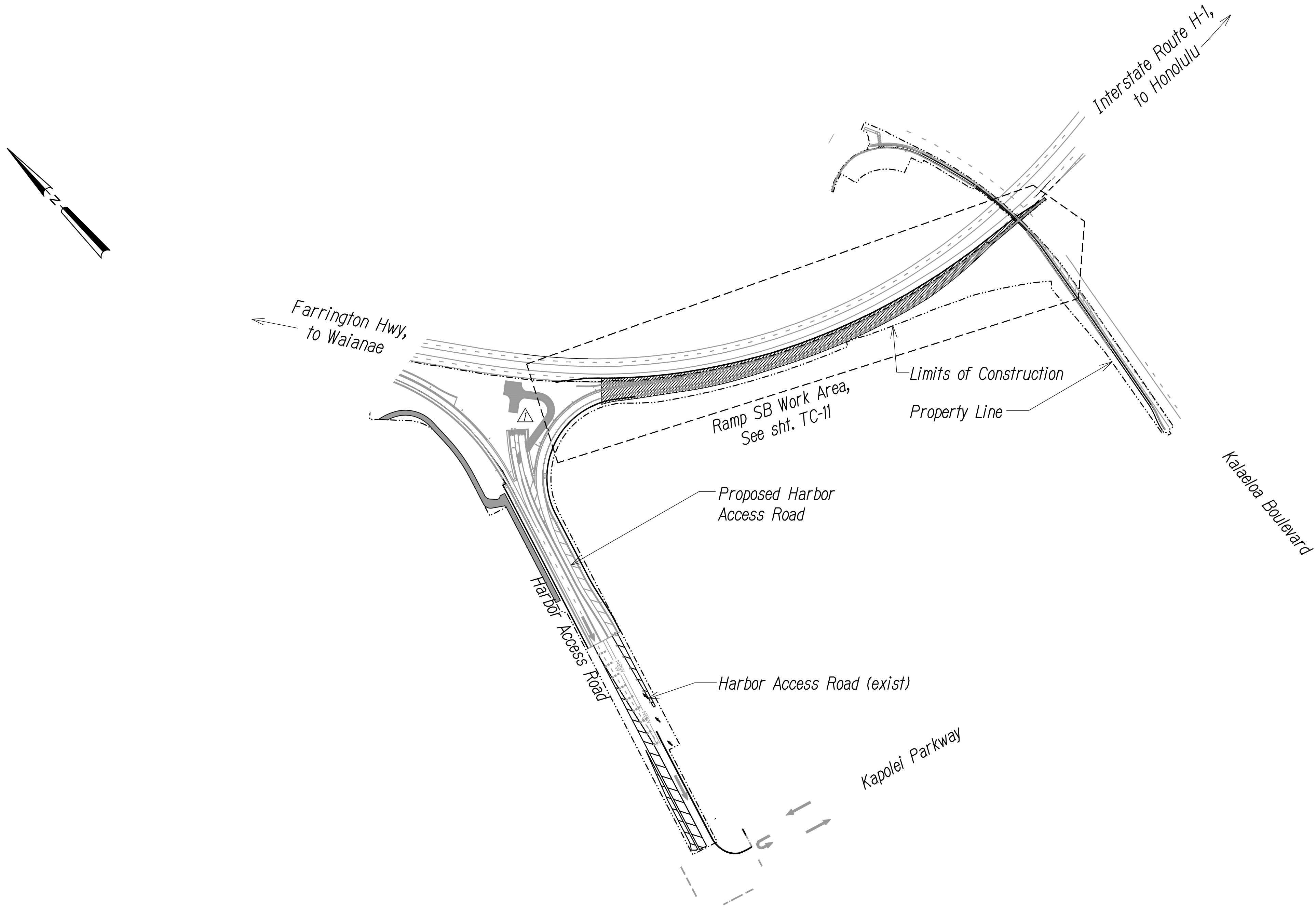
*Legend*

----- Limits of Construction

----- Property Line

▨ Work Area

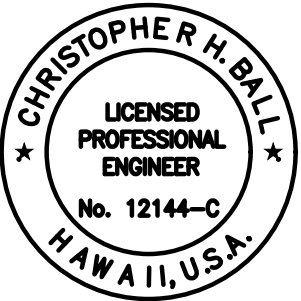
← Direction of Traffic



**SEQUENCE 4 OVERALL TRAFFIC CONTROL PLAN**  
Scale: 1" = 200'

SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

ORIGINAL PLAN	No.
NOTE BOOK	



This work was prepared by me or under my supervision

*Chris Ball*  
MITSUNAGA & ASSOCIATES, INC. 4/30/2024 EXP. DATE

NOTE: Contractor to check and verify dimensions at job before proceeding with work.

△ 11/17/2022	Added Maintenance Access Road
DATE	REVISION

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**SEQUENCE 4 OVERALL  
TRAFFIC CONTROL PLAN**

**INTERSTATE ROUTE H-1  
ADDITION AND MODIFICATION OF FREEWAY ACCESS  
(Kapolei Interchange Complex), Phase 3  
Federal Aid Project No. NH-H1-K(271)**

Scale: As Noted Date: August 2022



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-HI-K(271)	2022	ADD. 117	167

- Legend
- Limits of Construction
  - Property Line
  - Sign
  - Type III Barricade
  - Direction of Traffic

- Inertial Barrier System Notes
- CrashGuard Sand Barrel System, Energite III Crash Cushions, Big Sandy Series, or Approved Equal
  - Follow Manufacturer's Recommendations
  - MASH Rating: TL-3

- Notes:
- Traffic Control Devices shall be in use 24 hours a day, 7 days a week.

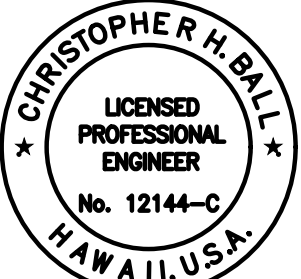
11/17/2022	Revised Traffic Control
DATE	REVISION

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**TRAFFIC CONTROL PLAN - HARBOR ACCESS ROAD SEQUENCE 5**

INTERSTATE ROUTE H-1  
ADDITION AND MODIFICATION OF FREEWAY ACCESS  
(Kapolei Interchange Complex), Phase 3  
Federal Aid Project No. NH-HI-K(271)

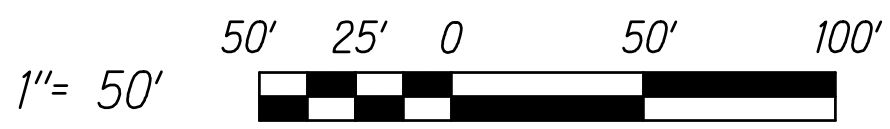
Scale: As Noted      Date: August 2022



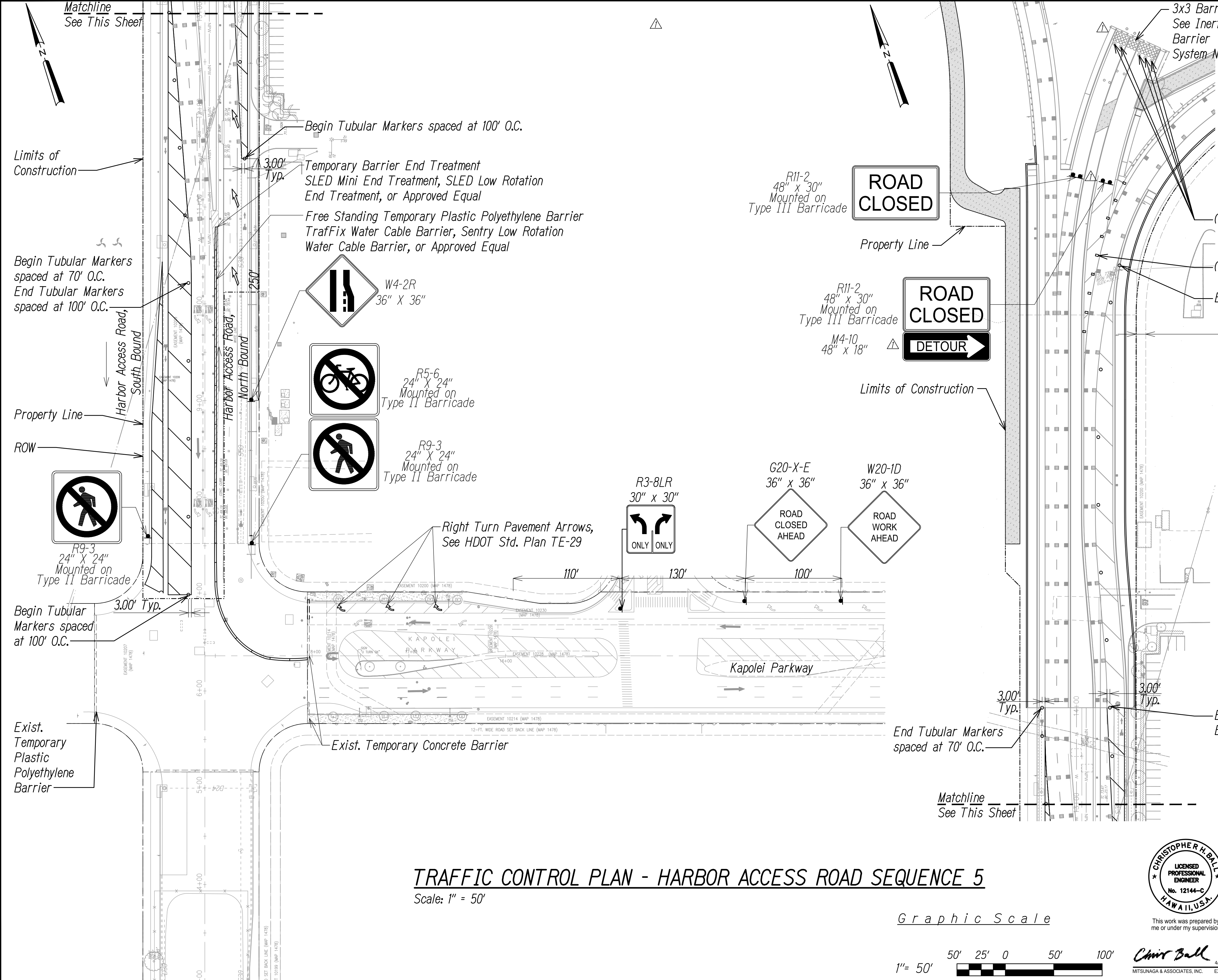
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*Chris Ball*  
MITSUNAGA & ASSOCIATES, INC.      4/30/2024  
NOTE: Contractor to check and verify dimensions at job before proceeding with work.

Graphic Scale



**TRAFFIC CONTROL PLAN - HARBOR ACCESS ROAD SEQUENCE 5**  
Scale: 1" = 50'



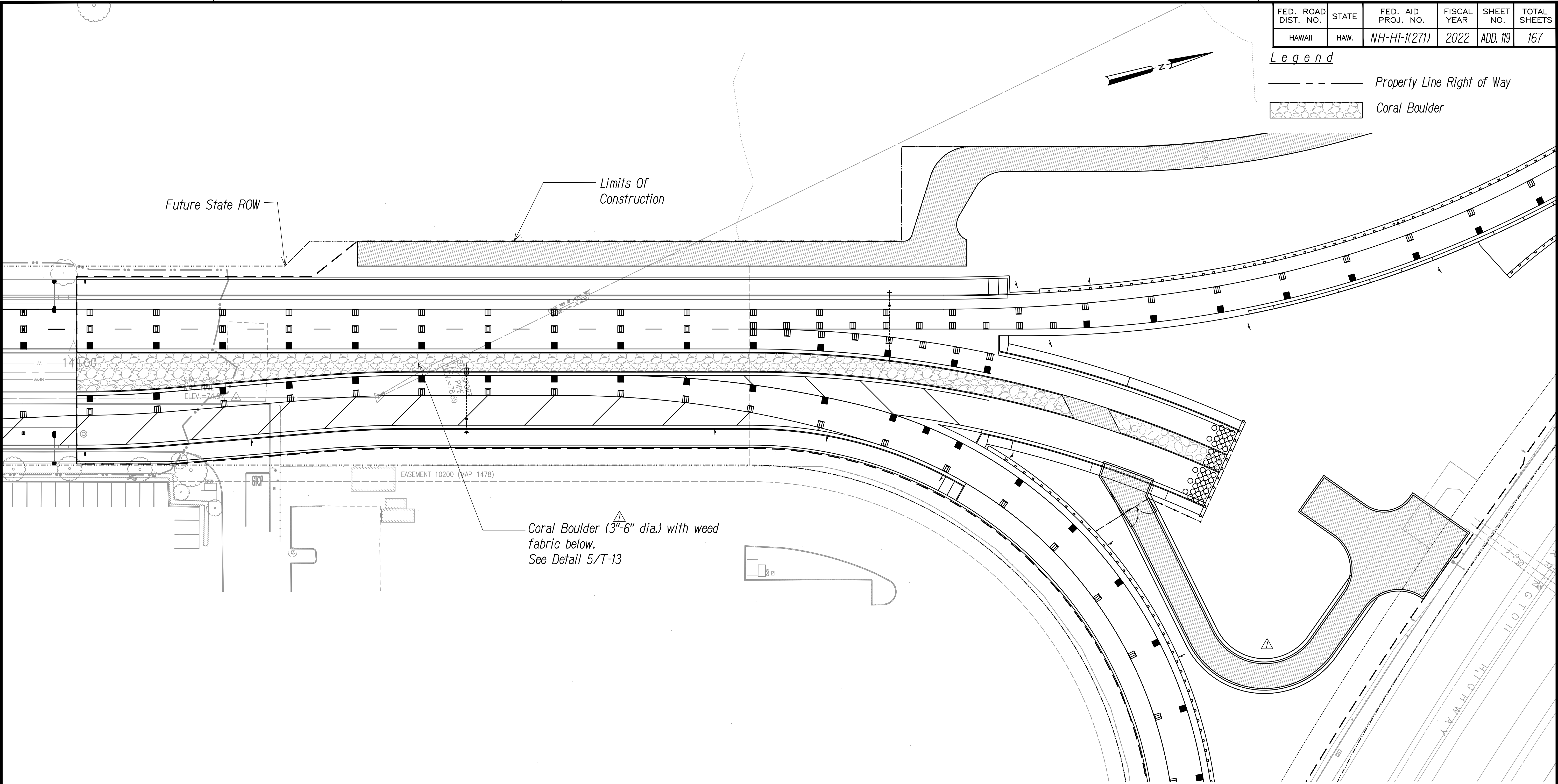
SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
QUANTITIES BY	
CHECKED BY	

ORIGINAL PLAN	NO.
NOTE BOOK	

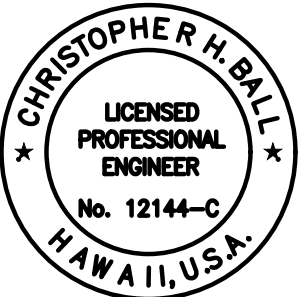
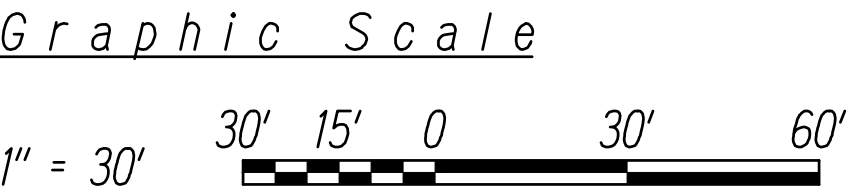
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-K(271)	2022	ADD. 119	167

Legend

- Property Line Right of Way
- Coral Boulder



Harbor Access Road - Planting Plan  
Scale: 1" = 30'



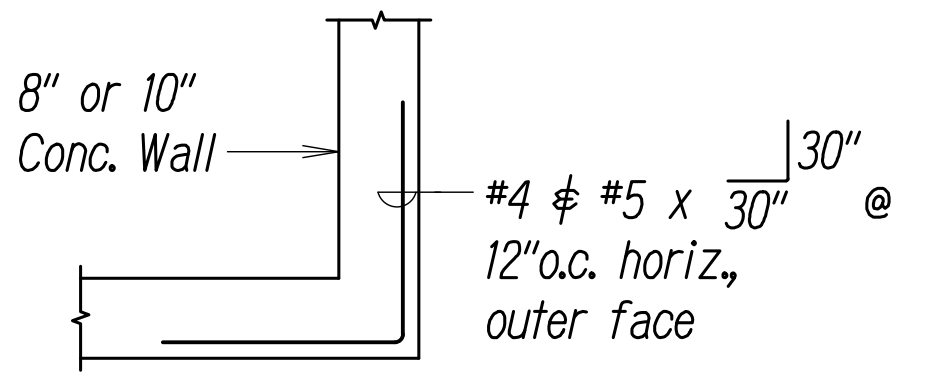
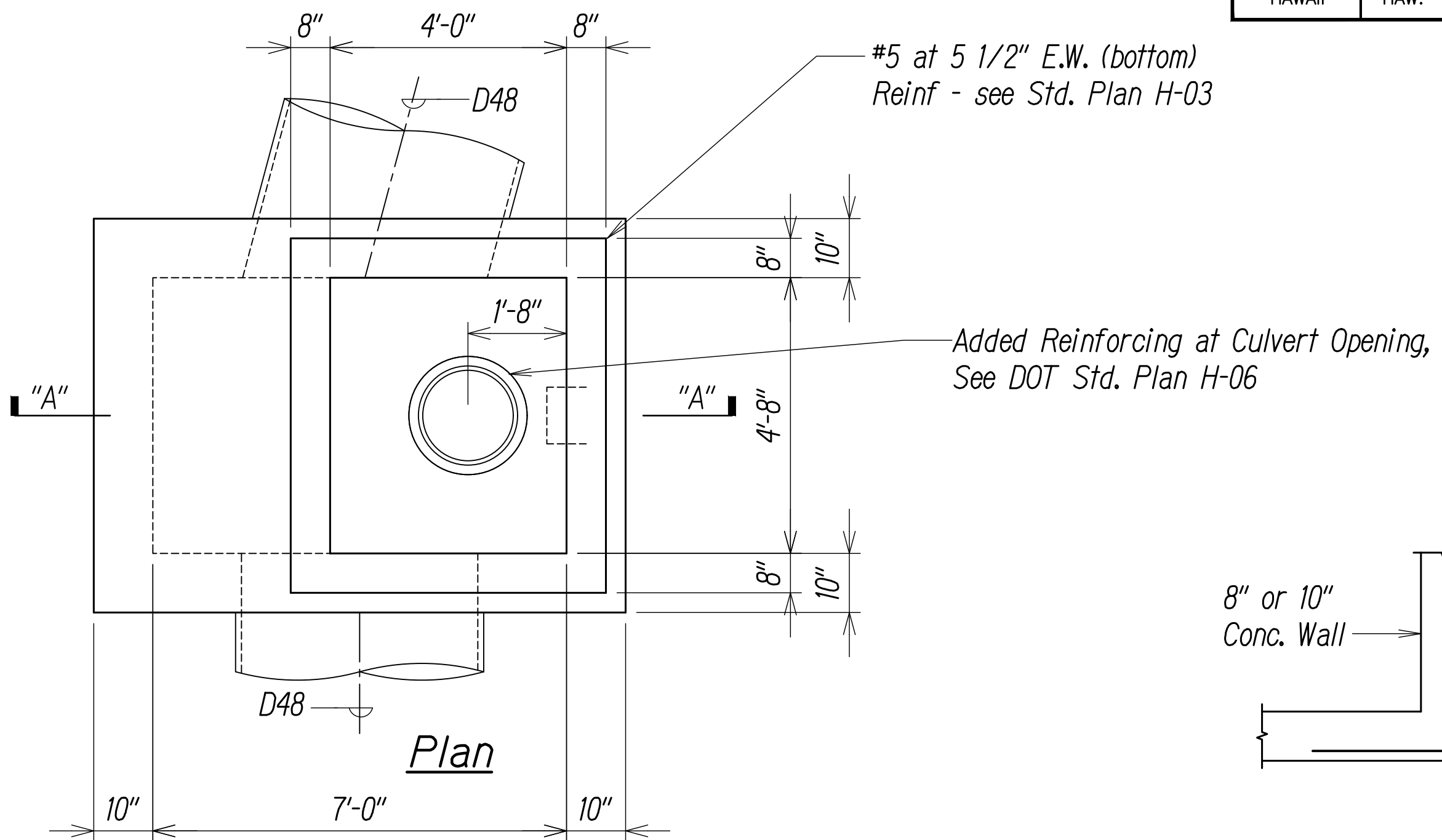
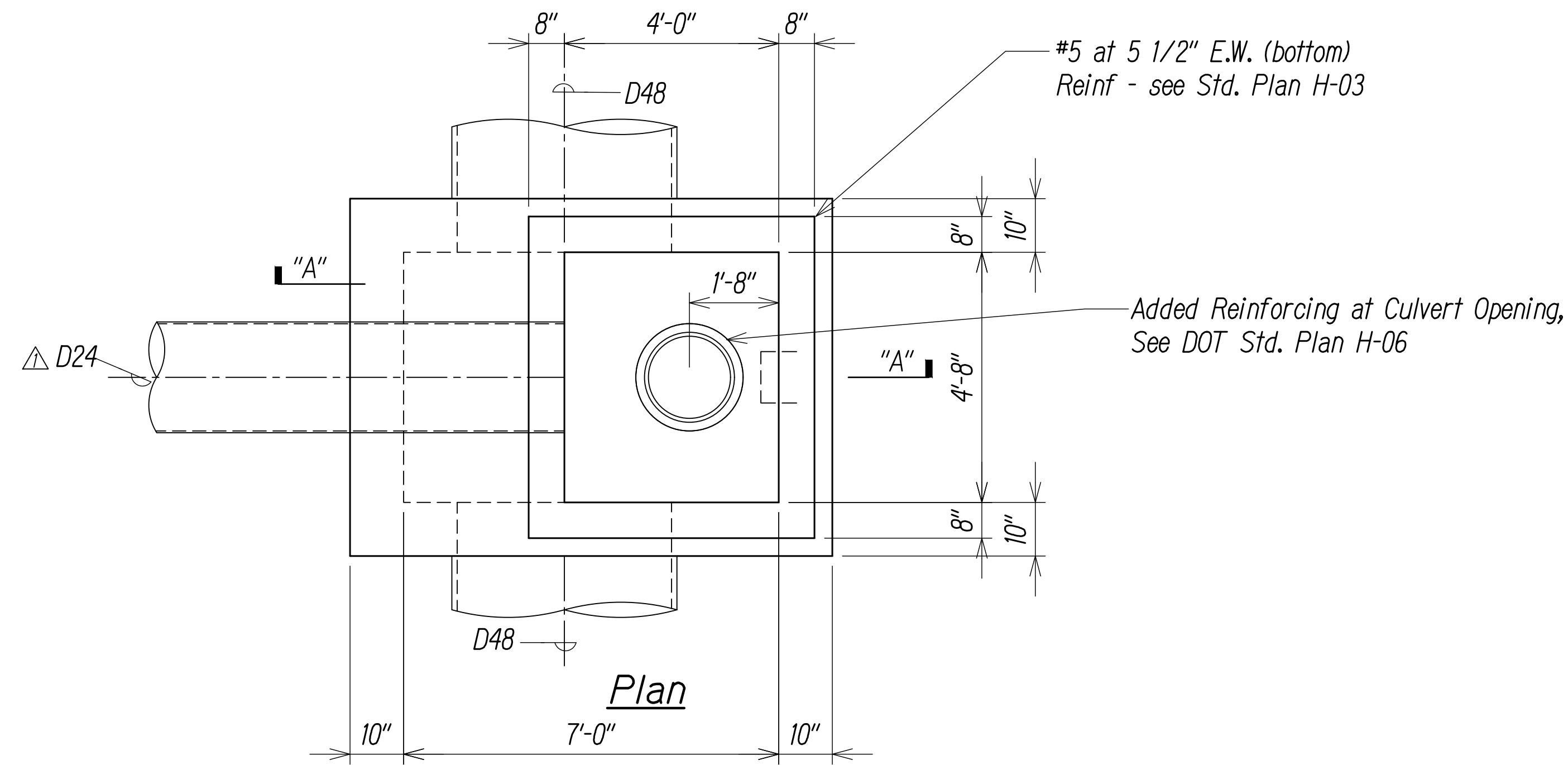
This work was prepared by me or under my supervision  
Chris Ball  
MITSUNAGA & ASSOCIATES, INC. 4/30/2024  
NOTE: Contractor to check and verify dimensions at job before proceeding with work.

11/17/2022	Added Maintenance Access Road Revised Coral Boulder Diameter
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<b>PLANTING PLAN</b>	
INTERSTATE ROUTE H-1 ADDITION AND MODIFICATION OF FREEWAY ACCESS (Kapolei Interchange Complex), Phase 3 Federal Aid Project No. NH-H1-K(271)	
Scale: As Noted	Date: August 2022

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-K(271)	2022	ADD. 131	167

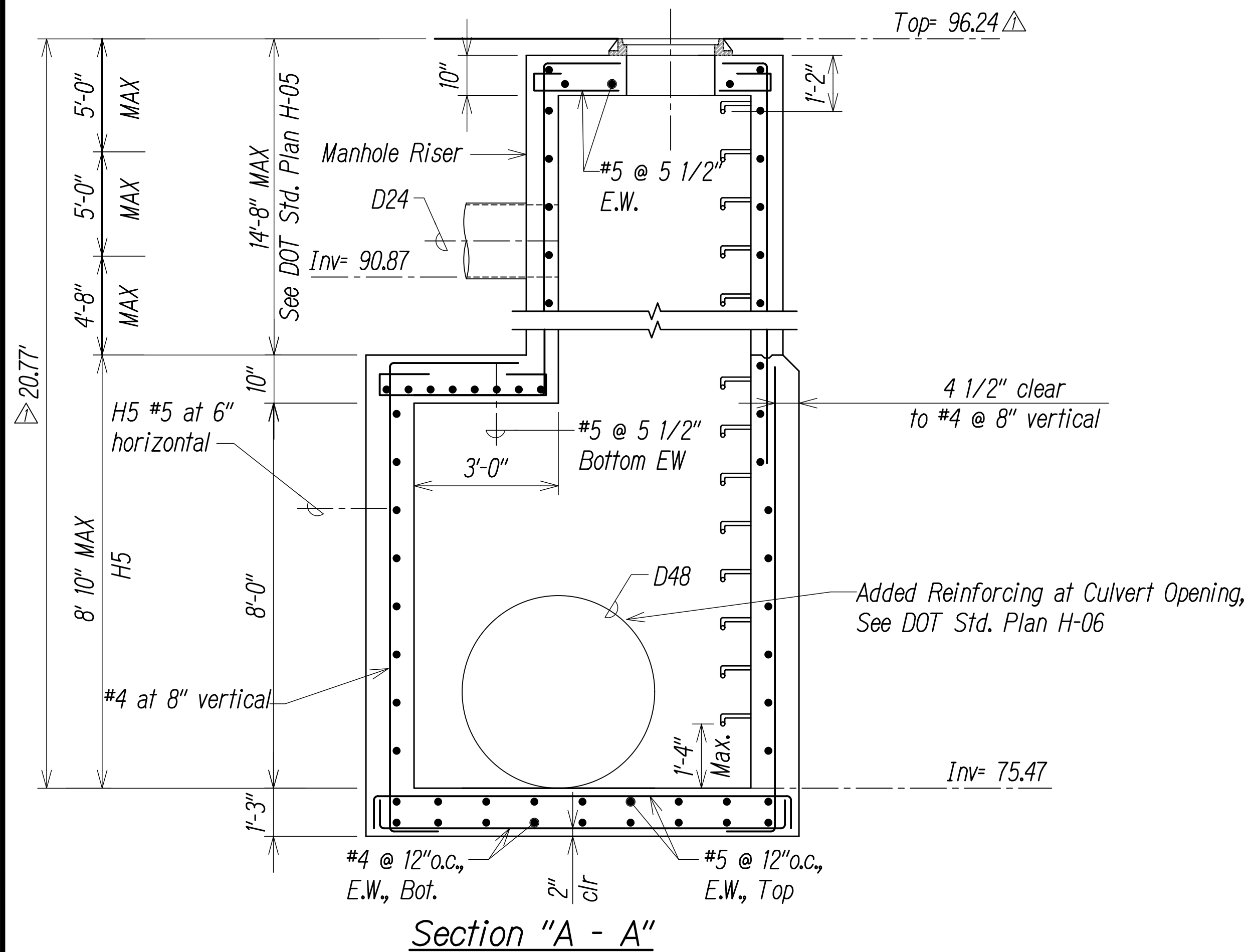


### Typical Wall Corner

Scale: 1/2" = 1'-0"

1  
S-12 S-12

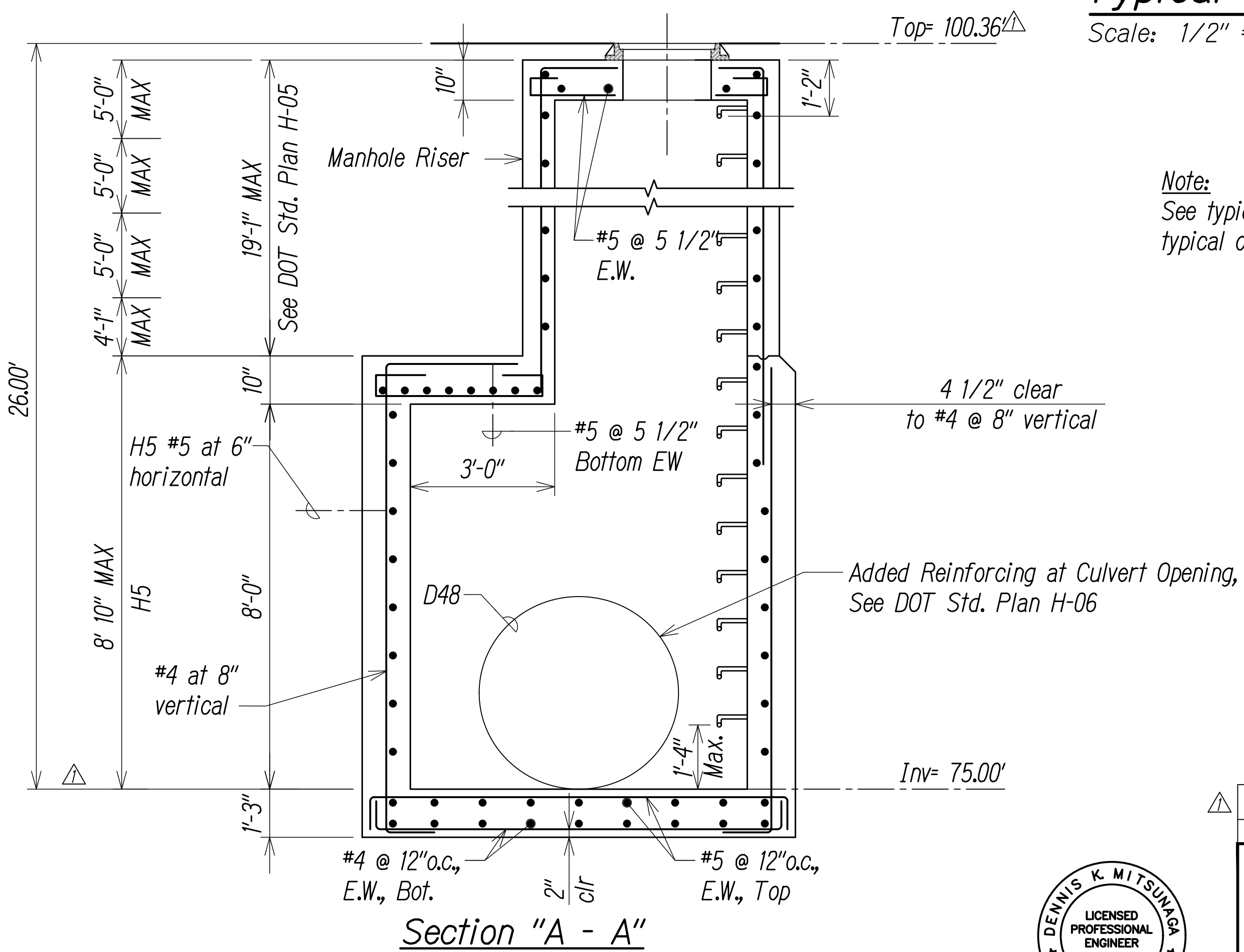
Note:  
See typical wall corner reinforcing and  
typical opening reinforcing on this sheet.



SDMH I-2

Scale: 1/2" = 1'-0"

2  
D-2 S-12



Section "A - A"

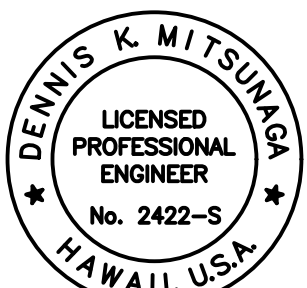
SDMH I-1

Scale: 1/2" = 1'-0"

1  
D-2 S-12

Graphic Scale

2 1 0 2 4ft  
1/2" = 1'-0"



THIS WORK WAS PREPARED BY ME OR  
UNDER MY SUPERVISION

MITSUNAGA & ASSOCIATES  
LICENSE EXPIRES 4-30-24

DATE	REVISION
11/17/2022	Revised invert & height on Det. I-2
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<b>DRAINAGE DETAILS 5</b>	
INTERSTATE ROUTE H-1 ADDITION AND MODIFICATION OF FREEWAY ACCESS (Kapolei Interchange Complex), Phase 3 Federal Aid Project No. NH-H1-K(271)	
Scale: As Noted	Date: August 2022
SHEET NO. S-12 OF 167 SHEETS	

ADD. 131